

MINISTRY OF THE ENVIRONMENT



1990-91 ESTIMATES CURRENT ISSUES

ENVIRONMENTAL CONTROL (1503)

OPERATIONS

HC
111
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1991
MOE

**RESOURCE PLANNING OFFICE
FEBRUARY 1991**

1990-91 estimates current issues : environmental control (1503) operations.

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HC
111
N5
1991

MINISTRY OF THE ENVIRONMENT

1990-91 ESTIMATES

CURRENT ISSUES

ENVIRONMENTAL CONTROL (1503)

OPERATIONS

**HAZARDOUS CONTAMINANTS
COORDINATION BRANCH
100 ST. CLAIR AVENUE WEST
TORONTO, ONTARIO M4V 1P5**

**RESOURCE PLANNING OFFICE
FEBRUARY 1991**

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COMPLIANCE AND ENFORCEMENT (1503-5)

DIVISIONAL NOTES

DIOXIN/FURAN LEVELS IN FISH NEAR ONTARIO'S NINE BLEACHED KRAFT MILLS

BACKGROUND:

- The Federal government has a National Dioxin Program which involves the assessment of the receiving waters (waters, sediment, biota) around all 47 Canadian mills which use chlorine for chemical bleaching of pulp.
- MOE has provided the Federal Department of Fisheries and Ocean (DFO) with samples of fish and sediments collected from around the nine bleached kraft mills in Ontario. Approximately 120 samples of Ontario fish collected between 1986 and 1990.

CURRENT SITUATION:

- DFO and Health and Welfare Canada (HWC) are analyzing the 120 fish samples for dioxins and furans. The analyses will be completed by late March, 1991.
- DFO/HWC closed the commercial shellfish fishery (shrimp, prawn, crab) in portions of Howe Sound, British Columbia, which receives effluent from three bleached kraft mills based on similar analyses.
- The Federal government issues consumption advice for commercial and native fisheries while sport fish consumption advice is a Provincial responsibility.

FUTURE ACTION:

- HWC will evaluate the results for implication on human consumption of fish.
- MOE will confer with DFO/HWC staff regarding the evaluation of the data and subsequent release of the human consumption advisories.
- The mechanism for public release of the data and human consumption advice (expected in the spring of 1991) is being worked out between the Federal and Ontario governments.

Northwestern Region
Northeastern Region
Southeastern Region

DIOXINS AND FURANS IN REGENERATION WASTEWATERS FROM PETROLEUM REFINERY REFORMERS

BACKGROUND:

- Dioxins and furans have been identified in the internal waste streams from the catalyst regeneration process in petroleum refinery reformers.
- During the preparation for the MISA monitoring program in 1988, the Shell refinery identified dioxins and furans in the caustic wash from their catalyst regeneration in the reformer unit. Dioxins and furans were not previously known to be present in the Petroleum industry's wastewater.
- In November 1988, the Ministry's laboratory confirmed these findings. Total dioxins ranged from 1.8 parts per billion (ppb) to 22.2 ppb and total furans from 4.4 to 27.6 ppb. No dioxins or furans were identified in the final effluent.
- After this discovery, a joint Ontario Petroleum Association OPA/MOE committee was formed to deal with this issue. Sampling at all refineries was performed to establish the level of dioxins at each.
- The Ministry produced an interim effluent guideline for refineries at 15 parts per quadrillion (ppq) of 2,3,7,8-TCDD toxic equivalents in the final effluent. This concentration is also the Interim Drinking Water Objective. The existing ambient air guideline also applied.
- Shell and Suncor were required to store their caustic wash until a treatment method could be developed. It is now being treated through an activated carbon filter before being discharged to the biological oxidation treatment units (birox units).
- After sufficient studies were done, Esso was permitted to process their wash water through the Birox unit.
- Petro Canada at Oakville, in the first round of testing, did not show dioxins in their wash water. Subsequent testing identified low-levels of furans. The internal wastewater stream was held in storage until analyzed. Analysis showed no detectable concentrations of dioxins or furans and the stored water was discharged.
- Petro Canada at Clarkson and McColl Frontenac (Esso) at Nanticoke do not have any wastewater discharges from their regeneration units.

CURRENT SITUATION:

- The MISA Petroleum Sector Specialist is coordinating the Ministry's activities on this issue and is in dialogue with the industry and Regions on methods to treat the reformer wastewater.

FUTURE ACTION:

- The Ministry is in the final stages of developing the Petroleum Refining Sector Effluent Limits Regulation which will control the discharge of toxic contaminants in effluents from the petroleum refineries. This development work includes the establishment of a method for the control of dioxins and furans.

Southwestern Region

GREATER TORONTO AREA URBAN STRUCTURE CONCEPTS STUDY

BACKGROUND:

- The GTA is comprised of Metropolitan Toronto, the Regions of Durham, Halton, Peel and York and the 30 municipalities within these five regions.
- This unprecedented growth within the GTA is placing enormous strain on its infrastructure and resource base.
- Key decisions will have to be made, and coordinated planning will be required to manage the growth and enhance quality of life.
- Decisions regarding future infrastructure will have long term implications for fiscal and economic development and the evolving urban form.
- The Greater Toronto Coordinating Committee (GTCC) was established in 1987 to examine issues that affect all municipalities and regions in the GTA. The Committee includes representation from all five regions, local municipalities adjacent to Metro Toronto and the Provincial government.
- The GTCC commissioned the Study. It is a planning study and there are no recommendations.
- The Study presents three generic urban structure concepts for the GTA and provides a broad comparison of the three in terms of their infrastructure requirements, the capital costs of facilities, etc.
- The urban structure concepts include:
 - Concept 1 - Spread - a status quo concept.
 - Concept 2 - Central - intensification in built-up areas resulting in significantly reducing rate of urbanization beyond existing urban boundaries.
 - Concept 3 - Nodal - intermediate concept where growth is primarily around existing communities in a compact form.

CURRENT SITUATION:

- The Study was released in June of 1990 to regional and local municipalities, interest groups and the public for review.
- MOE has undertaken a review and is in a position to provide comments.

FUTURE ACTION:

- The primary concern of the Ministry with the report is that the leading consideration in the development of the concepts appears to be economics. The economic assumptions were drawn primarily from population/employment growth forecasts that were based on existing trends.
- The Ministry recommends that environmental quality be a leading consideration in the development of urban concepts and in any planning decisions within the GTA.
- MOE provide comments to the Office of the Greater Toronto Area on the Urban Structure Concepts Study.
- Any study of future growth options should include a comprehensive evaluation of the natural resources and attributes of the GTA.

Central Region

LAKEFILLING - LESLIE STREET SPIT

BACKGROUND:

- The 1989 Interim Report of the Royal Commission on the Future of the Toronto Waterfront recommended a moratorium on all new lakefilling until a comprehensive policy was developed. The Commission recognized some exemptions may be necessary. The Premier endorsed the Report's recommendations.
- Approval has not been sought for any major lakefilling projects since release of the Commission's interim report.
- Metropolitan Toronto is currently preparing a class environmental assessment for expansion of the Main Sewage Treatment Plant. Their proposal may involve a significant amount of lakefilling. MTRCA is preparing an environmental assessment for Eastpoint. This project will also involve a significant amount of lakefilling.
- The Metropolitan Toronto and Region Conservation Authority (MTRCA), as the Ministry's agent, has administered the "Improved Lakefill Quality Control Program" for all lakefill sites on the Metropolitan Toronto Waterfront (Leslie Street Spit, Bellamy Ravine, Guildwood Parkway and Fishleigh) since January 1989.

CURRENT SITUATION:

- Fill currently being accepted is handled in one of the following manners:
 1. tested material which complies with the lakefill quality guidelines is disposed of in open water; and
 2. untested material from inspected small sites (less than 20 loads) is disposed of in confined areas (no potential for loss of material).
- A draft public discussion paper on Lakefilling Policies has been prepared. The paper is currently being modified to accommodate the Sediment Quality Guidelines.
- The Materials Policy Committee has finalized a policy framework for material management. One of the management components is lakefilling.

FUTURE ACTION:

- At the request of the Minister, the Royal Commission will be addressing the issue of lakefilling.

Central Region

THE LESTER B. PEARSON INTERNATIONAL AIRPORT EXPANSION

BACKGROUND:

- An Inter-Ministry Working Group, comprised of representatives from Ministry of Transportation (MTO) (lead agency), and Ministries of Environment, Natural Resources, Municipal Affairs and the Office of the Greater Toronto Area was established in January 1990 to coordinate the Provincial response to the Federal Environmental Assessment and Review Process (EARP) on this issue.
- A five member Federal Environmental Review Panel, appointed to review air transportation proposals for the Toronto Area, held a series of scoping meetings in March and April 1990. Proponents and opponents to the airport expansion has opportunities to make presentations to the Panel.
- The Panel issued draft guidelines for the preparation of an Environmental Impact Statement (EIS) on Air Transportation Proposals for the Toronto Area in May 1990 and final guidelines in August 1990. These guidelines identify the information the Panel expect Transport Canada to provide on this expansion project and its impacts.
- The Provincial position, supported by MOE, is that the guidelines were comprehensive and extensive and attempted to address most of the concerns presented during the scoping meetings.
- Ministry staff have met with Transport Canada (TC) to identify concerns related to air quality and noise for consideration in their studies. Staff requested that TC submit airport study reports to the Ministry for review and comments.
- MOE Regional staff attended study progress meetings with TC and their consultants on storm water quality, quantity and fuel spill management, impacts of glycol-based aircraft de-icers and urea use on airport runways on the receiving streams' water quality.

CURRENT SITUATION:

- In November 1990, the Ministry received a technical report on stormwater analysis for review. It is a supporting document for the EIS. The report adequately addressed the Ministry's concerns on this issue.
- Except for a technical report on "state of the art" of air quality monitoring at major international airports, no other reports were received on air quality and noise, the issues of greatest public concern. Copies of such reports were requested in December 1990, and were promised by TC when they become available.

FUTURE ACTION:

- On January 29, 1991, TC will brief the Inter-Ministry Working Group on the Airport Development Proposals for Pearson Airport. This briefing is similar to those already given to the various municipalities in late 1990.
- TC expects to submit its EIS to the EARP Panel in late March 1991, at which time it becomes a public document. Its submission date has been delayed several times. This will be followed by a 60-day review period. During this time, the EIS will be reviewed with respect to the guidelines. If found acceptable by the Panel, other agencies and other participants public hearings will be held.
- The position this Ministry and the Province will take on the proposed expansion at the Pearson Airport will depend upon their review of the Environmental Impact Statement that will contain the actual expansion proposal.

Central Region

MINE TAILINGS

BACKGROUND:

- Mine tailings are the sand/silt sized waste product following stages of crushing, milling and ore extraction of various types of rock. By weight, over 95% is usually wasted.
- The tailings contain the process chemicals (i.e., cyanide, flotation agents) and leftover granular rock slurry after the desired precious metals and/or minerals have been removed.
- Tailings can contain dissolved metals, high or low pH, dissolved and suspended solids, cyanide, oils and greases, process chemicals, arsenic and radium.
- Tailings ponds are constructed to hold the tailings mass and allow for treatment and eventual discharge of the treated effluent.
- There are approximately 3,000 known abandoned mine sites, which include some 3100 hectares (7,700 acres) of tailings deposits.
- The majority of these sites are in Northern Ontario.
- Ownership of some of these sites has reverted to the Crown.
- Problems encountered at these sites include acid mine drainage, dam erosion/failure and occasionally toxic effluent discharges.
- Corrective measures for these environmental problems are in the millions of dollars.
- The Ministry of Northern Development and Mines (MNDM) is the lead agency at active/closed mine operations where a company retains ownership. The Ministry of Natural Resources (MNR) is responsible for sites that have reverted to the Crown.
- MOE is involved in the issuance of Certificates of Approval for the operating tailings/effluent treatment systems and monitoring for adherence to water quality objectives.

CURRENT SITUATION:

- Acid mine drainage issues are currently under study/review by the Mine Environment Neutral Drainage (MEND) Group. This is a Canadian mining industry and Federal/Provincial body who jointly fund research projects to enable the prediction of long-term impacts and solutions to acid drainage from tailings.

- MOE is continuing its involvement in the Abandoned Mine Hazards Committee with MNDM, MNR, Ministry of Labour and Ministry of Municipal Affairs. The Committee administers a small budget to correct abandoned mine hazards such as openings to surface, areas of potential collapse and mine wastes/effluent.
- Uranium tailings sites are under the jurisdiction of the Atomic Energy Control Board. MOE provides comments/input upon request, and our approvals apply to effluent sources.
- Jurisdiction for closeout is not clear. A Federal/Provincial group of agencies is negotiating a solution to the jurisdictional problem. Ontario's position is formulated through the Ministry of Intergovernmental Affairs.

FUTURE ACTION:

- Mining Act revisions (Part IX) will enhance MNDM's powers on closeout. MOE will advise MNDM on environmental issues.
- Responsibility for inspections of abandoned facilities is not considered the role of MOE District Offices.
- MNDM are preparing a Cabinet Submission to deal with the funding needed to resolve the Crown's liability for abandoned mine hazards. Costs are estimated to be \$10 million over three years.
- A Cabinet Submission is under preparation to present options for the Province's position on jurisdiction for closeout of uranium mines.

Northeastern Region

THE OAK RIDGES MORAINE

BACKGROUND:

- The previous government requested Mr. Ron Kanter to undertake a study on the options for a Greenlands Strategy for the GTA.
- The study, "Space for All - Options for a Greater Toronto Area Greenlands Strategy", was released in July 1990 to municipalities, the public and interested groups for review and comment.
- In support of the Greenlands Report, the previous government announced:
 1. the initiation of a two year land use planning study of the Oak Ridges Moraine to determine the best way to protect its unique features; and
 2. an expression of provincial interest related to land use planning and development and the sensitivity of the Moraine.
- Ministry of Natural Resources (MNR) has been designated the lead Provincial agency.

CURRENT SITUATION:

- MOE has reviewed the Greenlands Report and is preparing comments for MNR.
- MOE has been working with MNR and the Ministry of Municipal Affairs (MMA) to develop guidelines to ensure compliance with the expression of provincial interest. These guidelines will provide guidance to agencies involved in land use planning to ensure development protects the sensitivity and significant features of the Moraine. They will be available to municipalities, developers and the public.
- The guidelines will be in place until the recommendations of the land use planning study regarding long term protection of the Moraine are implemented.
- There are two options for commenting on development in the absence of the land use planning study being considered for the guidelines:
 1. no development outside of established urban boundaries; and
 2. limited development outside of established urban boundaries, but only if a municipality has done a municipal wide study to identify means of protecting significant features and sensitivities of the Moraine within their boundaries.
- MOE has been working with MNR and MMA to finalize the Management Board Submission for the land use planning study.

FUTURE ACTION:

- MOE will provide comments on the "Space for All" report to MNR.
- MOE will work with MNR and MMA to finalize the guidelines and the Management Board Submission.
- MOE will be an active participant in the land use planning study.

Central Region

PULP AND PAPER INDUSTRY - STATUS

BACKGROUND:

- Most mills in Ontario are very old. They use large volumes of water and, most often, effluents are toxic to fish (LC50 <100%).
- Control Orders and Directors Orders have been used by MOE to control effluents from mills.
- A recent court case has shown problems in the use of the Environmental Protection Act and Ontario Water Resources Act to further reduce contaminants in pulp and paper mill effluents.

CURRENT SITUATION:

- All nine kraft mills in Ontario have a generic Control Order in place requiring reductions in chlorinated organic contaminants to less than 2.5 kg/tonne of bleached kraft pulp produced.
- Several non-kraft mills have Control Orders in place to resolve site-specific problems.
- The Expert Committee report on non-kraft mills is expected to be released shortly.
- The new Federal Pulp and Paper Regulations are expected to be promulgated later this year.

FUTURE ACTION:

- MOE staff will monitor and issue Certificates of Approval for proposed works installed by mills to meet Federal Regulations.
- MISA monitoring data will continue to be reviewed for any problems, and investigations will be initiated where required.
- The MISA Limits Regulation for the Pulp and Paper Sector is under development.

Northwestern Region

**ROUGE RIVER VALLEY
CITY OF SCARBOROUGH - AN OPEN SPACE STRATEGY**

BACKGROUND:

- In March of 1990, the Minister of Natural Resources announced that the Rouge River Valley area will be protected through the establishment of a 10,500 acre park.
- At the direction of Cabinet, the Provincial Rouge River Valley Open Space Advisory Committee (interministerial committee) was set up to prepare a conceptual plan for the management of public open space lands in the Rouge Valley.
- The proposed park includes a block of land that stretches from Steeles Avenue South to Lake Ontario and from the west rim of the Rouge River Valley to the Scarborough-Pickering boundary. The land south of Steeles Avenue is 13 times the size of Toronto's High Park. North of Steeles Avenue, the proposed park area includes the valleylands of the Rouge River and the Berczy, Bruce and Little Rouge Creeks. These valleylands are in the Regional Municipality of York.

CURRENT SITUATION:

- The Rouge River Valley Open Space Advisory Committee is preparing the concept plan.
- North of Steeles Avenue the ongoing acquisition of the Rouge River, Berczy Creek, Bruce Creek and Little Rouge Creek Valleylands will be guided by the Rouge Watershed Management Strategy of the MTRCA.
- Interim protection of the valleylands will be implemented through co-operative planning with the municipalities and the conservation authority.

FUTURE ACTION:

- MOE will continue to be involved when opportunities for agency input into the decisions affecting the Rouge Valley arise.
- The type of park being created still has to be determined. The Advisory committee will recommend which agency or combination of agencies should manage the park.

Central Region

ROYAL COMMISSION ON THE FUTURE OF THE TORONTO WATERFRONT

BACKGROUND:

- The Commission released its second interim report in August 1990 entitled "Watershed". The report contained 80 recommendations relating to the Toronto waterfront and its watershed.
- Some of the recommendations were broad in nature, while others were specific to defined areas. Several of the recommendations have direct implications with regards to the MOE.
- The Minister fully endorsed the principles put forward in the report for the future direction of the waterfront area.
- In order to implement key recommendations of the report, the government has committed to the following:
 1. the establishment of a continuous Waterfront Trail that ties the GTA together from Burlington to Newcastle;
 2. supporting the idea of Waterfront Partnership Agreements as a valid implementation vehicle for waterfront plans; and
 3. the establishment by legislation of a Waterfront Regeneration Trust to coordinate regeneration activities.
- The Commission was asked by the Minister in December 1990 to address, among other things, the policies, practices, technology and methods available to regenerate shoreline areas. This will include a review of lakefilling policies and practices.

CURRENT SITUATION:

- An environmental audit of the East Bayfront and Port Industrial Area is currently being undertaken by the Commission to develop the best possible description and understanding of the environmental conditions of the study area.
- A report on Phase I of the audit was released in April 1990. The final report is due to be released in March 1991. The report details the ecosystem approach adopted for the audit, which identified linkages, or pathways, among components of the ecosystem.

FUTURE ACTION:

- Review the final report by the Commission on the environmental audit of the East Bayfront and Port Industrial Area.
- Assist in the Commission's investigation of current lakefilling policies and practices.

Central Region

THE SEATON COMMUNITY DEVELOPMENT IN NORTH PICKERING

BACKGROUND:

- The Province acquired approximately 20,000 acres of land in North Pickering in the mid-1970s.
- There are four components to the land: Seaton and Seaton West in the Town of Pickering and the adjacent lands in Scarborough and Markham.
- Seaton is a mixture of Class One and Two agricultural land in the north and Class Two and Three in the south. West Duffin Creek bisects the Pickering lands, separating Seaton and West Seaton.
- The previous Cabinet approved development of the community in February 1989. Goals for the community include affordable housing, sound environmental protection and management and on-going public consultation.
- Cabinet also approved in principle exemption from the Environmental Assessment Act, if a comprehensive environmental overview study was produced, and a public development Corporation was re-established.

CURRENT SITUATION:

- Staff of the Ministry of Housing are concerned that a full environmental assessment may jeopardize the progress made in developing a shared responsibility for Seaton with the Province, Town and Region; that they will be unable to proceed with infrastructure development until the approval is given; and that the larger issues such as agricultural land preservation and the extent of urban development in Southern Ontario will be introduced and that these issues can not be addressed in the context of Seaton.
- Reasons for considering a full environmental assessment include the size of the community, and the diversity of the components involved, i.e., water and sewer infrastructure, transportation within the community and linking the community to other areas and community facilities.
- If an exemption is granted, then the legislation creating the corporation would have to be changed to make it clear that the purpose of the corporation is to plan the community as opposed to develop the area.

FUTURE ACTION:

- The Government provide direction on planning for the Seaton community in the following areas:
 1. the appropriateness of the goals that have been established for the Seaton community;
 2. whether planning for the Seaton community should be done under the Environmental Assessment Act or should the granting of a conditional exemption be pursued; and
 3. whether the Ministry of Housing or a development corporation should be responsible for the planning of Seaton.

Central Region

SULPHUR DIOXIDE EMISSIONS VERIFICATION PROGRAM

BACKGROUND:

- The Provincial Auditor's Report highlighted that the Ministry was accepting, at face value, the sulphur dioxide (SO₂) and nitrogen dioxides (NO₂) emissions data submitted by the four largest emitters contributing to acid rain (Ontario Hydro, Inco, Falconbridge, and Algoma Ore).
- An Emissions Verification Subcommittee, reporting to the Countdown Implementation Committee, was established; the Subcommittee retained consultants to undertake studies on how best to verify these emissions.
- The Emissions Verification Subcommittee agreed with the consultants recommendation that procedural SO₂ emissions audits be undertaken for the three metallurgical companies based on the sulphur mass balance computation method. The Subcommittee further recommended that these audits be done by independent consultants, paid by the companies, and identified the need for studies on the feasibility of using Continuous Emissions Monitoring (CEM) Systems for reporting annual emissions.
- Section 17 Director's Orders were prepared and served on Inco and Falconbridge on July 6, 1990, and on the Algoma Steel Corporation Limited (Algoma Ore Division) on July 9, 1990. They require the companies to: develop a procedures manual based on the mass balance method; retain an independent consultant to design an audit protocol, and perform procedural audits on an annual basis, starting with the 1990 calendar year. In addition, Inco and Falconbridge are required to conduct a study on the feasibility of using a CEM System for reporting annual emissions.

CURRENT SITUATION:

- The companies have submitted a draft procedures manual for review, and have retained independent consultants to design their audit protocol and undertake the audits. The audit protocols are presently being reviewed.

FUTURE ACTION:

- Audits of the companies' reported 1990 annual SO₂ emissions quantities are expected to be completed during the first quarter of 1991.

Northeastern Region

WASTE TIRE SITES IN ONTARIO

BACKGROUND:

- Waste tire storage sites in the past, because tires are wholly recyclable, have not required Part V EPA approval.
- Aftermath of the Hagersville fire, Regulation 309 was amended to require all sites with greater than 5000 used tires or their by-products to require certification by October 1, 1990.
- The Fire Code was also amended specifying storage requirements for Outdoor Tire Storage Yards.
- Sufficient recycling facilities for used tires are not available within the Province.

CURRENT SITUATION:

- The number of sites identified containing in excess of 5000 used tires varies between fifty to sixty with a total of approximately 3.7 million tires. On January 24, 1991 the number of sites with more than 5,000 used tires was 52. A total of 44 sites, through the action of the Fire Department and the Ministry have removed tires so that they have less than 5,000 used tires on site.
- Sixteen sites (31%) have Certificates of Approval. Municipalities have requested a hearing on eight sites. MOE is still awaiting comment from municipalities with respect to the need for a hearing on six sites. Investigation & Enforcement Branch have occurrence reports on those sites without certificates of approvals.
- Thirty sites (58%) are in compliance with the Fire Code and the others are working towards compliance either voluntary or through legal action. Of the remaining 22 sites, six are new sites that are just beginning the process for inspection and compliance; six have minor violations which should be addressed by mid-February; three have Certificates of Approval (C of A) with compliance dates; two have Notices/Orders issued and Control Orders are being processed for the remaining 5 sites.
- Many sites are experiencing difficulty in complying with the provisions of the Fire Code because of a lack of funds, lack of recycling facilities or insufficient site area to allow pile separation or water storage to comply with the Fire Code.
- Seven sites have been identified as requiring orders to achieve Fire Code compliance in a timely fashion. Failure to respond to these Orders will result in the Ministry having to take action.
- MOE has provided security at a cost to date of \$2.03 million through private security firms to 60 sensitive sites until Cs of A have been issued. MOE security remains on

12 sites as of this date. This measure of Provincial security is viewed as a effective precautionary measure to reduce the likelihood of fires until such time that legal requirements are in place requiring the site owner to provide adequate security.

- Regional staff are receiving comments from the public expressing concern that the tire tax has been collected and yet no one is prepared to accept their used tires.

FUTURE ACTION:

- Ministry staff will continue working with the Fire Departments to achieve compliance with the Fire Code either through the use of Control Orders and/or Cs of A.
- Ministry staff will continue to process applications for certificates of approvals, including hearings where required. Key components of certificates will address Fire Code compliance, adequate security and a recycling program.

Central Region

INVESTIGATIONS AND ENFORCEMENT

THE ALGOMA STEEL CORPORATION LIMITED

BACKGROUND:

- The company has been convicted on six occasions for offences related to the Environmental Protection Act, Ontario Water Resources Act, Regulation 308 and Regulation 11/82.
- Algoma Ore Division in Wawa, a subsidiary of the company has also been convicted on three occasions for violations of the Environmental Protection Act.
- Enforcement activities at Algoma are closely monitored by the local press and Walter Sarich, a self proclaimed environmentalist. Walter Sarich routinely criticizes the Ministry in local and national media for its inability to effectively regulate the company.

CURRENT SITUATION:

- Algoma is presently under investigation for waste water discharges to the St. Mary's River and coke oven air emissions.
- Senior company officials are taking an increasingly belligerent attitude toward enforcement activities. As of July 25, 1990 Algoma has refused to schedule any further interviews of company personnel on property.
- On July 27, 1990 Algoma was charged with seven offences under the Environmental Protection Act that occurred between May 17 and June 21, 1989. In response to these charges, a company spokesman reported to the local media that the investigating officer is persecuting the company.

FUTURE ACTION:

- Charges relative to present investigations dealing with waste water discharges and coke oven air emissions are anticipated.
- A search warrant was executed at Algoma Steel in January 1991. The investigation is continuing.

Investigations and Enforcement Branch

PATHOLOGICAL WASTE ENFORCEMENT ACTIVITY

BACKGROUND:

- Pathological Waste is a "Hazardous Waste" by interpretation (R.R.O., 1980 as amended, Sec. 1, 27, (ix)) and a "Designated Waste" by inclusion (R.R.O. 1980 as amended, Sec. 2, 7.) It is defined in (R.R.O. 1980 as amended, Sec. 1, 48, i, ii, and iii.)
- Decom is a major carrier and receiver of pathological waste in Ontario. They have Certificates of Approval from Environment Ontario permitting both.
- Decom is a receiver and disposal site operator of pathological waste in Quebec. They require approvals from the Province of Quebec.
- Browning-Ferris Industries are a carrier of pathological waste in Ontario and an exporter of pathological waste from Ontario into the U.S.

CURRENT SITUATION:

- Shipments of pathological waste generated in the U.S. and destined for destruction in Quebec, have been intercepted by Environment Ontario, Investigations and Enforcement Branch and Revenue Canada - Customs and Excise at entry points into Canada. Five tickets have been issued under Ontario's Environmental Protection Act and two trucks have been returned to the U.S. for failure to produce proper documentation as required by Environment Ontario.
- Environment Ontario's waste transportation vehicle checks, carried out at the Ministry of Transportation Truck Inspection Stations, have found pathological waste being transported within Ontario without proper documentation.
- Ministry of the Environment waste manifests show Browning-Ferris Industries carried pathological waste from Ontario generators supposedly destined for destruction at a Toronto Hospital. Present information indicates in excess of 100 of these manifested shipments were illegally exported to the U.S. for disposal. Investigation is underway.
- During recent problems with Decom's Quebec incinerator, information collected indicates the illegal storage of pathological waste at Decom's Etobicoke facility. Investigation is continuing.
- Browning-Ferris Industries have been charged and convicted of transporting pathological waste from Sunnybrook Hospital Toronto to a transfer site in Ontario without proper approval.
- Four (4) Toronto Hospitals were charged with sending pathological waste to a local landfill site. All charges have been dismissed. Province was unable to prove the waste was pathological.

- Decom and associates were charged with 66 offences in 1990; these issues are still in the courts.

FUTURE ACTION:

- Attempt to find ways to prove "pathological waste" by legal definitions.
- Continue spot checks for improperly documented loads of designated wastes.
- Decom and Browning-Ferris are presently under investigation for other offences.

Investigations and Enforcement Branch

PROSECUTION AND ENFORCEMENT

PROSECUTION:

- In June 1985, the Minister announced the formation of the Investigations and Enforcement Branch (IEB) with a staff of 63. IEB was authorized to undertake proactive investigative programs on all violations of Ministry legislation.
- IEB works in cooperation with regional abatement staff to ensure that appropriate enforcement is undertaken.
- IEB has given the Ministry a high profile as a willing and capable unit that initiates prosecutions for violations of the legislation.
- As a result of the passing of the Environmental Protection Statute Law Amendment Act, 1990 penalties for environmental offences have been increased.

CURRENT SITUATION:

- Since the formation of the IEB, the record of prosecutions is as follows:

Calendar Year

	1986-87	1987-88	1988-89	1989	To Date (09/30/90)
Crown Briefs Submitted	261	259	300	343	251
Persons and/or Companies Charged	266	330	343	419	351
Number of Charges Laid	1,541	1,459	1,568	1,500	1,395
Total Prosecutions	179	211	244	277	188
Total Convictions	138	170	176	171	145
Total Fines \$	785,770	1,056,038	2,025,076	2,016,354	1,933,951
Average Fines (\$)	5,694	6,212	11,506	11,791	13,338

- Noteworthy cases include:

Defendant	Charges	Penalty
734591 Ontario Ltd. cob MAP F.R.P. Custom and Repair Ltd. and Soma Ali	2 E.P.A.	\$ 54,000
Union Carbide Canada	3 E.P.A.	\$ 50,000
Servass Rubber Canada Inc.	53 E.P.A. 1 O.W.R.A.	\$152,500
Ram Tuff Shot Blasting Ltd.	16 E.P.A.	\$132,000
Polysar Ltd.	1 E.P.A. 1 O.W.R.A.	\$ 60,000
Mancuso Chemicals Ltd.	16 E.P.A. 8 O.W.R.A.	\$ 70,000
Blackbird Holdings Ltd.	3 E.P.A.	\$ 90,000 and 6 month jail term
Alcan Smelters and Chemicals Ltd.	2 E.P.A.	\$ 60,000
Inco Ltd.	1 O.W.R.A.	\$ 50,000 and Court Order to train staff in environmental hazards and \$ 50,000 to community Fisheries Improvement Program

FUTURE ACTION:

- Documented occurrences of possible violations will continue to be investigated, and charges will be laid where warranted.

Investigations and Enforcement Branch

WASTE FUEL INSPECTION PROGRAM

BACKGROUND:

- News articles in mid-May 1989, alleged the moving of hazardous waste into Ontario for retail sale.
- There has been allegations in the past years of illegal movement of hazardous waste within the Province as well as importing and exporting of contaminated fuel to and from the Province.
- The Ministry has had ongoing inspections prior to these news articles.
- All analytical reports to date (October 10, 1989) have indicated no PCB or chlorinated organic solvent contamination in retail fuels.
- The Investigations and Enforcement Branch has set up regular fuel and waste vehicle inspection programs to ensure companies are in compliance with waste handling procedures.
- The Ministry of Transportation of Ontario and the Ontario Provincial Police staff assist in the administration of the fuel and waste inspection program.

CURRENT STATUS:

- In 1989, the Investigations and Enforcement Branch carried out over 30 highway and border spot checks. This involved inspecting 345 vehicles, taking 276 samples, issuing 24 provincial offence tickets and initiating further investigation on 40 cases.
- In 1990, the Investigations and Enforcement Branch operated 21 highway and border spot checks. This involved inspecting 257 vehicles, taking 29 samples, issuing 11 provincial offence tickets and initiating further investigation on 18 cases.

FUTURE ACTION:

- The Investigations and Enforcement Branch will continue the spot check program on waste and fuel carriers in 1991.

Investigations and Enforcement Branch

CENTRAL REGION

ACHIEVOR TIRE
CITY OF MISSISSAUGA, REGION OF PEEL

BACKGROUND:

- Company established a tire recycling operation at the Britannia Road landfill site in 1987.
- In November 1988, the company moved its operation to the Region of Peel, Public Works Yard at 180 Derry Road East, Mississauga.
- The company had intentions to operate a shredder leased from Resource Recovery in Orangeville with the understanding that Resource Recovery would take all the shredded rubber.
- Resource Recovery encountered problems with disposal and/or reuse of shredded rubber and was unable to take the material from Achievor Tire. As a result, the portable shredder was removed from the site in 1989.
- Since 1989, the operation at this site has been mainly sorting, distribution and storage.
- Achievor has a plant in Glace Bay, Nova Scotia where tires are retreaded.
- Staff inspected this site on February 20, March 13, 14, April 27, April 30, May 18, July 19 and July 22 of 1990. The owner has been cooperative and has complied with MOE and Fire Department requirements.

CURRENT SITUATION:

- Most of the tires at this site are stored in enclosed trailers. There are approximately 70 trailers stored outside with a total volume of about 85,000 tires. In addition, there is approximately 5,000 tires stored inside a sheet metal building on this site.
- Achievor Tire filed their application for a waste tire site on April 14, 1990.
- As the property is not fenced off, the Ministry is providing 24 hour security. This has been in place since May 18, 1990, and will continue until the company moves from these premises. The company expects to move to a new site in Mississauga in the near future. The owner has been advised a new application must be provided and a certificate issued before he is permitted to establish a new-site.
- Approximately 32,000 tires are processed through this site a month. About 50% of the tires end up as re-treads, 8% are used as bumper tires at docks, 5% as blasting mats, 15% are exported and 22% are sent off for shredding.

- On July 25, 1990, the Ministry received information from Brampton Cartage that a number of trailers from Achievor Tire had been removed and abandoned in various unknown sites in Ontario.
- According to Mr. Yang of United Trailer, he rented 25 trailers to a Mr. Calucci of MGW. Mr. Calucci was going to transport the tires to Hamilton from which they were to be exported to China and used in the construction of a reef. Of the 25 trailers, ten are still stored at United Trailer's site in Brampton. Mr. Yang also mentioned that cheques were given to him by Mr. Callucci but returned NSF. At the same time, Mr. Calucci disappeared.
- At present, 13 trailers (original ten plus three that have been located and returned) with approximately 13,000 tires are in storage at the United Trailer site in Brampton.
- The site at United Trailer is properly secured with a ten-foot chain link/barbed wire fence. No further security is required at the site.
- MOE staff have found the other 12 trailers of used tires at Markham Sales Limited (Mr. Angelo Ciciretto) located on Bloomington Side Road in Markham.
- In addition, three trailers of used tires have been found on property owned by Mr. Victor Von in the Township of Mariposa. Apparently the tires were initially unloaded and the trailers given to Mr. Calucci. These tires have since been placed back into trailers and are stored on the property.
- IEB is aware of the above incident and has undertaken an investigation.

FUTURE ACTION:

- Maintain security at Achievor Tire.
- Ensure Achievor Tire files a new application for the new site.

Central Region

ANACHEMIA SOLVENTS LIMITED - MISSISSAUGA

BACKGROUND:

- A shipment of waste solvents (still bottoms) from Anachemia to Alpena, Michigan on May 29, 1990, was returned to Anachemia on June 1, 1990. PCB concentrations as high as 15,000 ppm were found in the wastes.
- Director's Instructions under Regulation 11/82 were served on the Company on June 1, 1990. Under the instructions, the Company was required to check all incoming wastes for PCBs, stop processing waste solvents until PCBs had been properly managed, establish an approved PCB storage site and test all outgoing loads for PCBs.
- On June 26, 1990, the Company notified the Ministry of the Environment that PCBs were once again found on-site.
- Testing has shown that the PCB contamination has spread to all the new tanks in the Anachemia tank farm. Apparently Anachemia purchased 30 used tanks from S. Cronish Limited in Toronto that were coated with a waterproofing paint which contained PCBs. PCB levels ranged from 3300 ppm to 6500 ppm. Four tanks remain at the Cronish site.
- Samples taken by Anachemia from the walls of the tanks were found to contain high concentrations of PCBs. This was confirmed by MOE.

CURRENT SITUATION:

- Anachemia has retained Sanexen to manage their PCB wastes.
- A Part V Provisional Certificate of Approval (C of A) was issued to Anachemia on July 12, 1990. Anachemia has appealed this C of A indicating that the conditions dealing with financial assurance and hydrogeotechnical requirements are unreasonable.
- Anachemia has resumed waste processing, but has isolated all PCB wastes until a PCB storage facility is completed.
- A Crown brief on Anachemia is currently under review.

FUTURE ACTION:

- Work with the Company and Sanexen to ensure that all PCBs are stored in an approved PCB storage facility on this site.

Central Region

ARTS AUTO WRECKERS, TOWN OF WHITBY
(Tire Storage Site)

BACKGROUND:

- The subject site, located in Lot 18, Concession 4, Town of Whitby contains approximately 300,000 tires. This tire storage site is identified as an A1 site. (Site has greater than 100,000 tires and is close to a residential area).
- The site was inspected by MOE staff and the Town of Whitby Fire Department for compliance with the Fire Code.
- The owner, Art Robinson, was informed by the Fire Department of site deficiencies regarding the Fire Code. The Fire Department followed up with the company on August 30, 1990, and subsequently extended the compliance date to November 5, 1990.

CURRENT SITUATION:

- MOE received a letter from the Fire Department on November 13, 1990, stating that the owner is not moving towards compliance with the Fire Code.
- On November 19, 1990, the Ministry advised the owner by letter that he was in contravention of Regulation 309 and that he must cease receiving used tires.
- MOE has arranged for off-hours security at the site.
- A draft Notice and Order have been submitted to the ADM's office for review.

FUTURE ACTION:

- The Ministry will monitor the site to ensure compliance with instructions not to receive additional used tires.
- The Ministry may issue the Notice and Order upon the owner to attain compliance with fire code and environmental regulations.
- MOE security will terminate upon service of the Notice and Order.

Central Region

ATARATIRI SOILS

BACKGROUND:

- Ataratiri is a mixed use development proposal in the City of Toronto. Its primary objective is to increase the affordable housing supply. The site encompasses approximately 26.6 hectares of an old industrial area located east of the City's downtown core.
- Ataratiri is proceeding under a partnership arrangement between two levels of government. The City has taken the lead as developer and the Province is providing funding. The City of Toronto is responsible for the first \$20 million and the Province is responsible for anything above \$20 million.
- The Minister of the Environment issued an exemption to the City of Toronto for the Ataratiri redevelopment pursuant to the Environmental Assessment Act. The exemption order requires approval by the Minister of the Environment of an Environmental Overview Study and approval of subsequent detailed soil and groundwater management programs for each area of the site by the Director of Central Region.
- The Environmental Overview Study is to address air quality, noise, soil management, flooding, etc.

Soil Management:

- The Soil Remediation Plan for the site, prepared by the City of Toronto identifies approximately 668,000 m³ of soil which is contaminated in excess of the Ministry's decommissioning guidelines.
- The Plan recommends off-site disposal of the more contaminated soils (225,000 m³), and on-site management of the less contaminated material (443,000 m³).
- 443,000 m³ of soil compares to 8,000 tandem truckloads, or two 40-car trains a day for six months, or 26 Dome stadiums, or one half of the total waste generated in Metro Toronto in one year.
- The options being considered include:
 - on-site management:** isolation such as burial of the contaminated soils at depth; placement under roadways and/or beneath buildings; containment at depth using grout curtains or slurry walls; and the creation of a waste disposal site under Part V, Environmental Protection Act.
 - on-site treatment:** cleaning processes; bio-remediation; dechlorination; and chemical stabilization.

- The City is developing clean-up criteria for contaminants not found in the Decommissioning Guidelines. Clean-up criteria from other jurisdictions are also likely to be used.

Flooding:

- The Lower Don has been designated a Special Policy Area under the Flood Plain Planning Policy Statement. The City is working with MNR, MTRCA and MMA to develop a flood mitigation approach and land use policies to address flooding.
- The main flooding issues to be resolved include: level of protection; cost; who will pay; who will undertake the work, timing, and the effect of the Environmental Protection Act on off-site flood protection works.

CURRENT SITUATION:

- Proposals for on-site isolation or treatment of contaminated soils have not previously been proposed on this scale.
- The decision regarding soil management for Ataratiri will affect future soil management practices throughout the Province.
- On-site management options protect limited landfill capacity and avoid public perception that the problem is being moved rather than addressed. The estimated cost of off-site disposal at a waste disposal facility of the 443,000 m³ of soil is \$50 M.
- On-site management options must be acceptable technically, environmentally and in terms of the health and safety of the future users of the site. Staff have concerns about on-site isolation techniques, and favour on-site treatment.
- If on-site management is accepted, responsibility for the long term requirements, such as Part V approval and monitoring will have to be determined.

FUTURE ACTION:

- A thorough evaluation of all alternatives for soil management be prepared by the City for consideration by the Ministry.
- The City finalize the environmental overview study and submit it for approval to the Minister.

Central Region

ATLANTIC PACKAGING
TOWN OF WHITBY

BACKGROUND:

- In September 1987, Atlantic Packaging announced the construction of a tissue and de-inking plant.
- The tissue mill had an operational start-up date set for mid-1989 and the de-inking plant scheduled start-up for early 1990.
- The anticipated ultimate water supply demand of 12 mg/d for the operation of the proposed facility was determined to be available.
- However, anticipated waste water from the proposed facility would substantially exceed the Corbett Creek sewage treatment plant available capacity.
- Through negotiations between Atlantic Packaging and the Region of Durham, a three phased construction program for the plant was developed, based on ability of the Region to provide sewer servicing. For each phase, there is a plan to deal with the increasing sewage loading.
 - Phase 1: waste water treatment at the Corbett Creek STP.
 - Phase 2: extensive pre-treatment by Atlantic Packaging and discharge to Corbett Creek STP.
 - Phase 3: to be constructed post-1993 if sewage treatment capacity can be made available by the Region of Durham through sewage plant expansions.

CURRENT SITUATION:

- Start-up of the Atlantic packaging tissue plant was initiated in early 1990, recycling approximately 1,800 tonnes/month through their corrugated mill machine.
- During 1990 an activated sludge treatment plant was constructed at the Atlantic Packaging Plant for pre-treatment of sewage prior to discharge to Durham Region's Municipal Sanitary Sewer.
- Sludge from the Atlantic Packaging operation is currently being substantially disposed of at the Brock West Waste Disposal Site.
- The de-inking plant commenced operation in mid-December 1990 and is anticipated to process 3,600 tonnes/months of recyclable paper.
- Atlantic Packaging has retained Ortech Consultants to consider alternatives to sludge disposal at a landfill site. Through sludge processing and/or treatment, sludge may be usable as a soil additive and be beneficial for land application.

- As an interim guideline, the Ministry has decided to use a concentration of 100 ppt dioxin in paper mill sludges as acceptable for land application.
- Process studies have been completed at the Corbett Creek Sewage Treatment Plant to determine optimization and treatment capability in the short term. An application for sewage works approval for interim plant improvement has been submitted to the MOE.
- An application for conditional approval for expansion at the Corbett Creek plant has also been submitted.

FUTURE ACTION:

- Current process changes in the pulp and paper industry to eliminate the use of chlorine in paper production should virtually eliminate dioxins in paper within approximately two years.
- Atlantic Packaging will be submitting an application for approval of land application of paper sludges as a soil additive to rehabilitate worked-out pits and quarries. Ministry staff will be working closely with Atlantic Packaging to ensure proper and adequate documentation in support of the application is provided.
- Ministry staff will continue to review Durham Region's application for approval of improvements and expansion at the Corbett Creek plant.

Central Region

BRACEBRIDGE - LACK OF MUNICIPAL WATER SERVICE

BACKGROUND:

- In 1987, the Town of Bracebridge lost approximately 25% of their Town water supply, when an organic chemical "tetrachloroethylene", along with other contaminants were found in their ground water supplies.
- In 1987, the Ministry of the Environment (MOE) allotted up to \$6.28 million from the Security Fund for the replacement of the loss of 0.465 million gallons per day.
- The source of contamination was felt to originate from the landfill; however, tetrachloroethylene was also detected upgradient of the site.
- The District Municipality of Muskoka initiated a Class Environmental Assessment to upgrade their surface-water water supply to full filtration.
- The existing surface-water water plant has no treatment other than chlorination and corrosion control.
- The surface-water water plant was operating at 88% capacity in 1990, but has commitments well beyond its rated capacity.

CURRENT SITUATION:

- The Town has commenced, at the Ministry's request, an abatement remediation program to resolve environmental concerns associated with landfilling operations controlled by the Town. A clay cap has been partially installed.
- The engineering study for the new water plant is now completing stage two of the Class Environmental Assessment process. Significant opposition to the preferred alternative from residents, cottagers and MOE has been recorded at numerous public meetings. Parts of the Environmental Assessment Report have had to be re-evaluated by the District's consultant.
- The District Municipality of Muskoka, the Town of Bracebridge, and the Ministry of the Environment have agreed upon a development control strategy to allow for restricted development within the Town until such time as new works are constructed.
- The Town, as part of the strategy, has initiated an aggressive plan to reduce consumption by large water users.
- The Ministry has allotted \$300,000 from the Environmental Security Account for the completion of the Class Environmental Assessment process.

FUTURE ACTION:

- Development restraints will remain in place until solid commitments are made for the construction of a new water plant or until such time as large water users reduce consumption.
- The Environmental Study Report is expected to be completed in late summer, 1991. Construction of new works will not commence prior to 1992.

Central Region

COBOURG LANDFILL, HALDIMAND TOWNSHIP

BACKGROUND:

- Cobourg Landfill was closed September 12, 1990.
- Cobourg is now hauling its domestic and commercial waste to the Seymour waste site which is owned and operated by the County of Northumberland.
- Industrial waste from Cobourg is going to the Laidlaw site in Napanee.

CURRENT SITUATION:

- Effective January 1, 1991, the County of Northumberland has taken the responsibility under Bill 201 for waste disposal in the County.
- The Town of Cobourg has submitted a draft closure plan for its landfill. This plan addresses monitoring, remedial actions and completion of final cover and vegetation of the site.

FUTURE ACTION:

- The County of Northumberland must pursue interim and long term waste disposal solutions for the town's wastes.
- The long term solution is being addressed through the County's waste management master plan which is expected to produce a new landfill and other facilities in three to five years.
- Cobourg's landfill draft closure plan is being reviewed by MOE and other interested parties. Review comments will be directed to the town for consideration in finalization of the closure plan.

Central Region

DECOM MEDICAL WASTE SYSTEMS INC.
ETOBICOKE, ONTARIO

BACKGROUND:

- The company is in the business of operating a waste transfer site at 63 Medulla Avenue where they take in pathological wastes and bulk the wastes for shipping mainly to its pathological waste incinerator in Gatineau, Quebec.
- The company has an existing Provisional Certificate of Approval for a waste site transfer station which was issued on February 11, 1987.
- A related company, Decom Transport Inc. operates a waste management system under a Provisional Certificate of Approval for liquid industrial wastes. An earlier Provisional Certificate of Approval was issued for a waste management system for pathological wastes.
- The two companies have had or are under-going major financial problems and have applied to operate the business under a different company in October 1990.
- Earlier in 1990, the company's incinerator in Gatineau, Quebec was shutdown, and this resulted in a backlog of wastes at Medulla Avenue, Etobicoke. As a result, many violations of wastes handling were recorded. In June 1990, the Ministry executed two search warrants, resulting in 66 charges.
- The 66 charges were laid against five related companies and one executive of the companies. These are Decom Medical Waste System Inc., Decom Transport Inc., Decom Resources Inc., Decom Disposal Services Inc., Decom Transport (Gatineau) Inc., and Mr. David Baker.

CURRENT SITUATION:

- The company is presently operating in an acceptable manner.
- Abatement staff will continue to keep surveillance on the operation at 63 Medulla Avenue.
- The Ministry has directed that any changes to Decom Transport Inc. and its operations must be reported.

FUTURE ACTION:

- A court hearing date on the charges has been set for February 25, 1991.

Central Region

**THE ETOBICOKE MOTEL STRIP SECONDARY PLAN
OFFICIAL PLAN AMENDMENT C-65-86**

BACKGROUND:

- The Motel Strip lands comprise 20.2 hectares, located on the Etobicoke lakefront, between Parklawn Road and Palace Pier Court. It is currently developed with motels, single family homes, a tavern restaurant and service station.
- The City of Etobicoke is proposing that the Motel Strip lands be redeveloped by private developers for a variety of uses including high density residential, commercial, public institutional and parkland.
- The Motel Strip Secondary Plan was requested for designation under the Environmental Assessment Act.
- In consideration of this request, the Minister of the Environment took the position to maintain the option for designation but to permit the land planning process to continue with the additional requirements that an Environmental Management Master Plan be undertaken. If environmental concerns were adequately addressed through this process, the designation request would be denied.
- The Secondary Plan has been referred to the Ontario Municipal Board (OMB).
- The Minister of Municipal Affairs has declared provincial interest in the development of the lands within the amendment.
- An Environmental Management Master Plan was prepared by the City. It is entitled, "Waterfront Public Amenities Scheme". The Minister accepted the report with two conditions.
- The preferred option for development in the Waterfront Public Amenity Scheme, recommended extensive lakefilling through the construction of a "deflector arm". The deflector arm would fall under the Environmental Assessment Act and would therefore require an individual environmental assessment.
- The EA Branch and other agencies, such as MMA, have concerns with respect to the densities proposed in the plan, the configuration of the public amenity areas, and the implementation of the public amenity areas.

CURRENT ACTION:

- The recent report of the Royal Commission on the future of Toronto's Waterfront, recommends a moratorium on all development in Southern Etobicoke to permit the formulation of a comprehensive plan for Etobicoke's Waterfront.

- The Province and Metro Toronto have requested that a Waterfront Overview Study for South Etobicoke be carried out by the City, to examine the impact of redevelopment in the area on employment, housing, servicing, transportation, community facilities and parks as well as the environment.
- The Province's interest in South Etobicoke includes: the creation of an overall plan or strategy to address redevelopment, the provision of affordable housing, adherence to the Crombie Report, and public involvement in the development of this area.
- The overview study will not, however, be a Comprehensive Plan. It will be a synthesis of the existing, ongoing studies.
- MMA has commissioned a report, which involves articulating the impacts of the application of the Crombie principles on matters of urban form, massing, density, access. This report will include proposals for modifications to the Official Plan. This report is expected to be available in April/May 1991.

FUTURE ACTION:

- The Province will have to determine an approach to the lakefilling provided for, in the proposed Secondary Plan.
- An Ontario Municipal Board Hearing has been scheduled for October 1, 1991.
- It is anticipated that the OMB and others will rely on the Ministry for expert evidence on all environmental matters associated with the Secondary Plan.
- The Ministry will review the Overview Study and the MMA report once they have been completed prior to finalizing its position on the amendment.

Central Region

INNISFIL LANDFILL SITE

BACKGROUND:

- The Innisfil Landfill Corporation site, located in the Township of Innisfil, formerly owned by Mr. Stephen Mernick, is now in the hands of Court appointed Receivers, Price Waterhouse Limited.
- The Landfill site was open under different ownership between 1970 and 1983. It was not in use between 1983 and 1985, however in 1987 residents inspecting an area off the site found a leachate spring.
- As a result of extensive testing, a leachate interceptor was installed on adjacent lands and those lands (the Davis property) were purchased by the Corporation.
- Following the Corporation going into receivership, Conditions of the Certificate of Approval were extended to allow the firm of Price Waterhouse to hire engineers and lawyers to finish the site development plans, the hydrogeological study and to complete the necessary application. A Hearing under the Environmental Protection Act will be held regarding the application to allow the six municipalities currently utilizing the site under an Emergency Certificate, to continue for a further five years.
- This Hearing is for the expansion of the service area for the interim use of these municipalities and does not represent an increase in area of the site nor a permanent increase in the rate of materials being disposed.

CURRENT SITUATION:

- MOE has received the Engineering and Hydrogeological Reports required by January 7, 1991 and these are currently under review by Ministry staff.
- The Site Certificate has been extended to September 1991 to permit the hearing to take place before the Environmental Assessment Board.

FUTURE ACTION:

- It is anticipated that the Hearing will be held in spring or early summer of 1991.

Central Region

KEELE VALLEY LANDFILL SITE

BACKGROUND:

- Keele Valley Landfill Site is Metro's primary municipal waste disposal facility, serving all of Metropolitan Toronto and the Regions of York and Durham.
- Approximately 12 million tonnes have been landfilled to date, leaving an approximate capacity of a further 8-9 million tonnes.
- A capacity projection by Metro establishes closure of the currently approved site by the end of 1993.
- Tire separation has been initiated at the site. Approximately, 75% of incoming tires are being transported off-site for recycling.
- A leaf and yard waste composting facility has been established at the site since 1989.
- In attempts to save landfill space, a soil recycling unit has been operational since October 11, 1990 at the Keele Valley Landfill Site. This machine will remove hydrocarbons from gasoline contaminated soils at a rate of approximately 30 tonnes/hour. The treated soil will be used for daily cover at the site.
- As the closure of Brock West and Britannia landfills draws near, Metro is waiting for a decision from the Minister to expand these landfills under the Minister's emergency powers or grant an extension to the service area of Keele Valley to include Durham and Peel Regions.
- Members of the Ministry's GTA task force are currently preparing impact studies on the aforementioned landfill's local municipalities. This should assist the Minister in making such a decision.
- Should an expansion of the service area require Metro to extend their hours of operation at Keele Valley, the City of Vaughan may seek legal action to appeal a decision on the grounds of excessive negative impact (traffic, dust and noise).
- Metro Toronto requires clay till from off-site to complete the liner and to complete the final cover for the Keele Valley Landfill Site.
- Obtaining clay is subject to approval under the Pits and Quarries Control Act, Part 5 of the EPA and expropriation approvals.
- Metro Toronto's applications for approval to extract clay for clay liner construction was before the Consolidated Hearing Board.

- On May 4, 1990, the Joint Board's decision with respect to the motion for the dismissal of Metro's application was to defer the matter to another Joint Board subject to a number of conditions.
- Subsequent to the Board's decision, Metro has applied for judicial review of this decision to the Divisional Court.

CURRENT SITUATION:

- Household hazardous wastes are collected, and sorted for shipment off-site.
- With an increase in the overall tipping fees to approximately \$150/tonne (as of March 1, 1991), Metro is attempting to direct recyclables to its recycling depot at Keele Valley which would be accepted for a reduced fee of approximately \$75/tonne.
- The Minister of the Environment has stated that expansion of existing sites, (Keele Valley, Brock West and Britannia landfills) may satisfy interim refuse capacity requirements until 1994 when a long-term solution must be implemented.

FUTURE ACTION:

- Based upon the advise of the Ministry's GTA task force's impact studies, the Minister must decide whether or not to expand existing sites once Brock West and Britannia reach capacity.
- If an expansion were denied for these sites, and an extension to Keele Valley's service area were ordered by the Minister, the Ministry must assess the resulting impact on the local municipality in the event of an appeal by the local municipalities to either an extended service area and/or extended hours of operation.

Central Region

KEMPFENFELT BAY/ROBSON LANG TANNERY

BACKGROUND:

- Robson Lang Leather Inc. went into receivership and closed in 1986. The property was subsequently bought by a development company for the construction of three condominiums.
- Allegations were made by former employees that poor management practices had resulted in unnecessary exposure of workers to potentially carcinogenic chemicals and that furthermore illegal dumping of chemicals had taken place at the factory.
- The development corporation, after discussions with this Ministry, hired consulting engineers to participate in the demolition of the building site, cleanup and the proper removal of any chemicals which remained on the site.

CURRENT SITUATION:

- The site was fully tested by the engineering consultants and all necessary cleanups were carried out. Tests now indicate that the property meets the Ministry of the Environment decommissioning guidelines with respect to the contaminants (Chromium) earlier identified as being present.
- Contaminated soils immediately adjacent to the property were also removed during the cleanup.
- Testing of the waters of Kempenfelt Bay show no contamination by Chromium, however, tests of the sediment in 1988 do reveal elevated levels. A literature survey and some testing is being conducted by the Water Resources Branch to determine if any potential hazard exists as a result of these historic activities.

FUTURE ACTION:

- Testing of the sediments of Kempenfelt Bay will continue to determine if any potential problems exist as a result of the elevated Chromium levels.
- Allegations with respect to illness of former employees are being investigated by the Ministry of Labour.

Central Region

KING TOWNSHIP ILLEGAL WASTE SITE

BACKGROUND:

- An 11.5 acre site on part Lot 21, Concession 2, Township of King, owned by Rolex (Petriglia) is being used for the transfer, processing and disposal of waste without Certificates of Approval.
- An investigation was initiated by Ministry of the Environment (MOE) Abatement staff in response to several citizen complaints received, May 1990 regarding dumping of waste at the site.
- A joint site inspection by MOE and Township staff on May 31, 1990, revealed that the property was being used as a transfer, processing and disposal site for construction debris without approval.
- During June and July, several field meetings were held between MOE field staff and the Petriglia family detailing the necessary approvals and clean-up requirements.
- A letter was hand delivered to Mr. John Carmine Petriglia on August 22, 1990, detailing the violations of the Environmental Protection Act and action that would be taken by the Ministry.
- On October 5, 1990, a zoning violation charge laid by Township against Rolex and Petriglia family was dismissed due to a procedural error.
- The Ministry has issued Orders to the principals of the involved companies.

CURRENT SITUATION:

- The Petriglia family are continuing to operate a waste transfer, processing and disposal operation on the property.
- The Ministry Orders require those served to stop further waste disposal on the site, submit plans to remove waste and restore the site, and to undertake the restoration. They are also required to study the extent of contamination at the site.
- The Ministry investigation has been completed and a report is being finalized.
- The Township obtained an injunction requiring that the recipients of the orders be:
 - restrained from using the site for storage;
 - remove the waste and machines;
 - restore the land to its condition prior to its purchase by the Petriglia family;

- allow Township staff or representatives to inspect the site;
- complete all work within 90 days.
- February 8, 1991, MOE Counsel attends at Osgoode Hall, to make a motion to the court re the Township of King Injunction.
- The names of Carmen Petriglia and Diana Beltrame are to be removed from the order as officers of Daily Disposal and Daily Disposal Services Inc.

Central Region

**KING TOWNSHIP LANDFILL SITE CLOSURE
WEST HALF LOT 27, CONCESSION 10**

BACKGROUND:

- In 1980, a revised Provisional Certificate of Approval was issued to King Township to operate a 1.5 hectare waste disposal site (WDS) on their 11.3 hectare property.
- In October 1988, staff expressed concern that remaining capacity should be assessed and the Township of King retained a qualified consultant to determine remaining capacity.
- In May 1989, MOE received from King Township a topographical survey for the site. This survey showed that the municipality had not exceeded final contour elevations. The survey, however, did not address areal extent of waste filling. During a subsequent August 16, 1989 meeting, King Township announced that landfilling had occurred beyond the licensed boundary. Extent of this unapproved filling was not known and King Township was requested by letter dated August 24, 1989, to determine the extent of total filling at the site.
- On May 9, 1990, MOE received from the Township's consultant a table of revised landfill capacity volumes for the site. According to the table, the total approved volume of waste at the site is 151,000 m³, the volume of waste deposited inside the licensed area is 135,000 m³, and the volume of waste deposited outside of the licensed area is 199,000 m³.
- On May 11, 1990, an amended C of A was issued and included a condition that required closure of the site commencing May 18, 1990.
- On May 17, 1990, The Township of King appealed Conditions 2 and 11 of the amended C of A. Condition 2 is the date of closure and Condition 11 is the closure plan.
- An Occurrence Report was filed on June 11, 1990 recommending investigation of a violation of the Environmental Protection Act for disposing waste in an uncertified location.
- In December 1990, in preparation for the Appeal Hearing it was determined that the Environmental Protection Statute Law Amendment Act 1990, Statutes of Ontario, Chapter 18, which received Royal Assent on June 28, 1990, applies. Therefore, the Township of King cannot operate while they await a hearing by the Appeal Board.

CURRENT SITUATION:

- On January 7, 1991, a letter was sent by Approvals Branch to Mayor Britnell and Members of Council, Township of King, stating that:
 1. The Concession 10 Landfill must be closed effective January 21, 1991.
 2. The Township of King must prepare a grading plan for the site.
 3. Should the Township wish to establish a transfer station at the site, staff will endeavour to process the application promptly.

FUTURE ACTION:

- Mayor Britnell will be contacted to ensure that the Concession 10 site has been closed and that alternate arrangements have been made to dispose of the waste at Keele Valley WDS.

Central Region

**LAIDLAW WASTE SYSTEMS LIMITED
TOWN OF NEWCASTLE**

BACKGROUND:

- On May 22, 1987, Laidlaw Waste Systems Limited purchased the existing landfilling operation and 20 acre waste disposal site from Regional Reclaimers (Hale) Limited located on Part of Lots 11 and 12, Concession 3, in the Town of Newcastle (formerly Township of Clarke).
- In June 1987, Laidlaw submitted a draft application under Part V of the EPA for a Certificate of Approval for the establishment of a 118 acre long term expansion adjacent to and south of the existing 20 acre site. The projected lifetime of the proposed new site is 20 years.
- In February 1988, the MOE advised Laidlaw that the proposed long-term 118 acre expansion site was designated subject to the Environmental Assessment Act (EAA).
- Laidlaw commenced an environmental assessment for the long term expansion.
- As the environmental assessment process for the long term expansion would not be completed prior to the existing 20 acre site reaching capacity, Laidlaw advised the MOE in January 1989 that it would apply for an interim (infill) expansion of the existing 20 acre site. This would be achieved by moving a Trans Canada pipeline, which bisects the existing 20 acre site, to the south of the site, thereby freeing up the pipeline right-of-way for infilling.
- Laidlaw's initial application for the infill project at the 20 acre site requested relief from the Ministry's policy of designating private waste management facilities under the EAA. The request was unacceptable to the MOE, as the rate of disposal was three times the existing fill rate, and represented a major expansion.
- After discussion with Ministry staff, Laidlaw reviewed its request in March 1989 to 110% of the rate of filling allowed under the present Certificate of Approval. This revision conformed with present Ministry policy on interim landfill expansions.
- The Region of Durham, Town of Newcastle and local environmental and ratepayers (Committee of Clarke Constituents) took a position against the expansion of the site in any form due to the site's long history of environmental problems with the previous owner. Consequently, they asked for a designation under the EAA.
- The EA non-designation for the interim "infill" project was granted on July 20, 1989 as it conformed with the Ministry's Interim Use Policy, as the disposal rate would not increase by more than 10% and the same service area would be maintained.
- On July 26, 1989, Laidlaw requested an Environmental Assessment Board hearing under the Consolidated Hearings Act for its Part 5 Environmental Protection Act (EPA) application for the interim project.

- On December 21, 1989, Laidlaw submitted to MOE an application for a two-year interim infill expansion under Part 5 of the EPA at the existing 20 acre site.

CURRENT SITUATION:

- Preliminary review of the application identified several concerns. MOE advised Laidlaw on March 9, 1990 to address the Ministry's concerns before proceeding to the Consolidated Hearings Board.
- A hearing before the Consolidated Hearings Board has yet to be scheduled. The Committee of Clarke Constituents for the Environment has requested Intervenor Funding.
- At a meeting held on March 5, 1990, Laidlaw submitted an application for an emergency Certificate of Approval for the interim expansion at the existing 20 acre site to service the Town of Cobourg for two years. The proposal was unacceptable to the Ministry.
- It was decided that MOE would scope the outstanding issues for Laidlaw and put forth a tentative review process schedule.
- Proposed Official Plan Amendments regarding the site are viewed as premature pending resolution of the Part 5 application.
- The Ministry has completed its review of the supporting documentation for the infilling application, and a meeting was held on December 17, 1990, with Laidlaw to discuss MOE comments.
- At the current reduced tonnage rate of 40 tonnes/week, the existing site will remain open until August 1991.

FUTURE ACTION:

- Ministry review staff will be available on an individual basis to meet with Laidlaw's consultants to discuss in detail any outstanding concerns.
- An internal decision will be made on a request by a concerned citizen's group for an EA for the infill project.
- MOE is awaiting submission of Laidlaw's draft environmental assessment of the long term expansion proposal.

Central Region

**MARKET LANE PUBLIC SCHOOL
CITY OF TORONTO**

BACKGROUND:

- In July 1990 the Ministry of the Environment took soil samples from the Market Lane Public School Annex located at 44 Parliament Street, Toronto.
- The sample results showed polycyclic aromatic hydrocarbon (PAH) contamination was present in the samples. Some PAH compounds are known carcinogens. PAH levels in the soil were elevated in a number of locations on the property. These locations correspond to grassed areas.
- PAH levels in six of the 12 samples were found to be in excess of the Council of Canadian Ministers of the Environment guidelines, above which investigations are warranted to assess the extent of contamination and the nature of any hazards and to determine if any remedial actions should be undertaken.
- Eighty percent of the school property is either covered with portable classroom units or asphalted.
- On August 28, 1990 a meeting was held with the City of Toronto Public Health Department, Environmental Protection Office, Ministry of Labour and Ministry of the Environment to review the findings of the soil and air sampling and to determine whether on-site remediation measures were required.
- At the August 28th meeting, it was concluded that the elevated PAH levels in the grassed area were a concern.
- It was recommended that remedial measures be taken to reduce the potential for exposure in these areas. An acceptable strategy was to isolate/cover the contaminated grass areas in order to prevent any direct access to the PAH.
- Furthermore, it was recommended that a subsurface soils investigation be undertaken to determine the extent of the contamination on the property.
- The Board of Education retained Proctor and Redfern Ltd. to manage the soils assessment and remediation program. The Board was eligible for reimbursement of 50% of the soil study and remediation costs under the coal tar funding policy approved by the Ministry's Management Committee in 1986.
- In October 1990 a 15 cm layer of clean gravel was placed on the site to isolate the contamination and reduce the potential for exposure to the students and staff at the school.
- In October 1990 Cantox Inc. was retained to assess the health risk of the contamination to the students and staff at the school. The risk assessment, based on the known contaminant concentrations in the soil and other environmental factors,

concluded that there was no significantly increased risk to students and staff occupying the site.

- The Ministry has arranged for an air sampling program which commenced in November 1990. One sampling site is located at 55 Mill Street immediately to the east of the school site.

CURRENT SITUATION:

- A public meeting regarding the risk assessment study is scheduled for Wednesday, January 30, 1991 at the Market Lane Public School. Cantox Inc. will present their findings at that time.

FUTURE ACTION:

- Ministry staff will attend the public meeting on January 30, 1991.
- The Ministry will continue to work with the Toronto Board of Education, and the City of Toronto to ensure that the site will be decommissioned in accordance with the Ministry decommissioning guidelines when the portables are removed from the site in 1991.

Central Region

**NEWCASTLE RECYCLING LIMITED
TOWN OF NEWCASTLE
(Tire Storage Site)**

BACKGROUND:

- The property owned by the above company, located in Lot 12, Concession 3, Town of Newcastle, contains approximately 250,000 tires. This tire storage site is identified as an A1 site. (Tire site with greater than 100,000 tires and near a residential area).
- The site was inspected by MOE and the Town of Newcastle Fire Department for compliance with the Fire Code for tire storage sites.
- Newcastle Recycling Limited was served with a Notice of Violation from the Town of Newcastle Fire Department indicating the deficiencies regarding the Fire Code, and directing that the deficiencies be corrected by September 24, 1990.
- A letter received from the Town of Newcastle Fire Department on October 15, 1990, indicated that owner is not working towards compliance with the Fire Code. MOE began preparing draft Notice and Order to attain compliance.

CURRENT SITUATION:

- In November 1990, the Town of Newcastle Fire Department informed MOE that the owner is making equipment available to correct site deficiencies as required in Violation Notice.
- A joint Fire Department and MOE inspection was conducted on January 14, 1991. The owner has separated the tires into pile sizes acceptable to the Fire Department. The owner has provided a secondary fire access route for fire fighting equipment.
- The Fire Department is satisfied that the ponds, a creek and municipal water supply in the vicinity of the site will provide an adequate water supply for fire fighting.
- The owner provided MOE with a letter indicating that he has reassessed the number of tires received at this site. Owner has stated that now only tires on scrap motor vehicles are received.

FUTURE ACTION:

- The Fire Department will be providing MOE with a compliance Notice in the near future.
- MOE security will be removed upon receipt of compliance Notice from Fire Department.

- MOE has an application for a C of A (waste transfer) for tire storage and will proceed with processing the application upon receipt of compliance Notice from the Fire Department.
- Since many concerns originally expressed by Town Council with regard to the C of A application have now been addressed, MOE will request Council to reassess their position with regards to the issuing of a C of A and a hearing for this site. Based on the response from the Town, MOE will proceed with issuing C of A or request a hearing.

Central Region

NORTH SIMCOE WASTE MANAGEMENT ASSOCIATION

BACKGROUND:

- The North Simcoe Waste Management Association is reviewing their Environmental Assessment documents as directed by Cabinet following an Appeal of the Environment Assessment Board's decision. The Association is endeavouring to resolve its difficulties as quickly as possible, acting as agents of Simcoe County.
- The County of Simcoe adopted Bill 201, taking over responsibility for waste management, by passing the initial by-law on January 23, 1990, and a further by-law on February 22, 1990.
- The Works Department of Metropolitan Toronto indicated to the County that Metro was unwilling to continue accepting wastes from North Simcoe at the Keele Valley site. Therefore, after consultation with the Ministry and their lawyers, the County decided upon an application to the Ministry for the emergency use of the landfill site, formerly owned by the Town of Wasaga Beach. A Certificate of Approval was issued on November 1, 1990. There was significant opposition from the Town of Wasaga Beach Council and a small number of local residents.

CURRENT SITUATION:

- The Town of Wasaga Beach Council continue to attempt to have the Certificate of Approval revoked.
- The site operation is inspected regularly by Ministry staff and its operation is satisfactory.
- The consultants acting on behalf of the North Simcoe Waste Management Association, in their reassessment of the EA are currently reviewing letters of comparison of the various selection criteria used. It is anticipated, following public meetings to be held later this month, that their position will be announced early in the spring of 1991.

FUTURE ACTION:

- Ministry staff will continue to cooperate with the Waste Management group of Simcoe County and the North Simcoe Waste Management Association to resolve their problems.

Central Region

OIL CANADA LTD
CITY OF TORONTO

BACKGROUND:

- Oil Canada is a waste oil re-refinery which ceased operations in October 1989 due to financial losses.
- From October 1989 to April 1990, the company was seeking financial assistance from the Ontario Government (Ministry of Industry Trade and Technology and the Ministry of the Environment) to reopen the facility.
- On April 19, 1990, the Ministry informed the company that funds were not available. On May 30, 1990, the former owners ceased funding the caretaking of the re-refinery and abandoned the plant.
- In view of possible environmental liabilities associated with the property which included 23 million litres of waste oil stored on-site, the major creditor The Royal Bank of Canada would not take possession of Oil Canada.

CURRENT SITUATION:

- After negotiations between the Royal Bank and the Ministry, the bank made application to the Courts for the appointment of a receiver. On June 5, 1990, the courts appointed Coopers & Lybrand Limited receivers to realize on the assets of Oil Canada but not to take possession of the plant.
- The Court Order also required the receivers:
 - to reimburse the Ministry for the cost of retaining 24-hour security around the plant;
 - to reimburse the Ministry for the cost of retaining technicians to provide 24-hour plant maintenance and housekeeping;
 - to retain an engineering firm to carry out an environmental audit of the condition of the waste storage facilities; and
 - to retain an engineering firm to carry out a soils study to determine contamination levels.
- The environmental audit recommended that the storage tanks be emptied in the near future to permit a more thorough inspection of the tank conditions.

FUTURE ACTION:

- The receiver is presently negotiating the sale of Oil Canada to Shannon Energy Ltd., an Alberta based firm.
- Receiver is also looking into options available to dispose of the waste oil. According to the receiver, the waste oil can be re-refined at a charge of 2 to 2.5 cents a litre. Another option being pursued is the disposal of the waste oil as fuel at St. Lawrence Cement, St. Mary's Cement and cement plants in the U.S.A.
- If the purchase of Oil Canada does not take place, the Ministry will have to consider ordering the removal and disposal of the 23 million litres of waste oil now in storage.

Central Region

**PAUZE LANDFILL SITE
TINY TOWNSHIP**

BACKGROUND:

- The Pauze Landfill Site was identified in 1981 as being the source of a plume which is migrating offsite in a westerly direction.
- Following an environmental mediation process, a communal water system was installed for the Village of Perkinsfield in January 1986 in order to satisfy the concerns of local residents with respect to drinking water supplies.
- In 1990 the Ministry of the Environment hired Terraqua Ltd. of Waterloo to review Ministry accumulated monitoring data, to establish the exact direction of the leading edge of the plume and to install additional monitoring wells if necessary.

CURRENT SITUATION:

- Terraqua Ltd. submitted a draft report in December 1990 to the Ministry and this document is being currently reviewed by staff.
- The construction of a peripheral drainage network, capping and the establishment of a vegetative cover of the site has been completed to the satisfaction of the Ministry.
- The site owner's consultant recently submitted a report to assess the status of the closeout plan for the site.

FUTURE ACTION:

- Following completion of the review of the draft report, Terraqua Ltd. will submit a final report to the Ministry and the results of this report will be presented to the public in Tiny Township, probably in the early summer when the Cottage Associations are available to receive the information.

Central Region

**PETRO-CANADA REFINERY
TOWN OF OAKVILLE, REGION OF HALTON**

BACKGROUND:

- The refinery has been a continuous source of odours and other emissions over the years, despite various air and water pollution control equipment being installed. This is partly due to the close proximity of existing residential areas, and to new subdivisions that were built even closer to the refinery within the last five years.
- When Shell Canada shut down their adjacent refinery in 1983, Petro-Canada had to install a new sulphur extraction plant to treat sour gas that previously was treated by Shell. There were serious start up problems, including one incident in October, 1983 that caused over 80 complaints, and requests to the Municipality of Halton Health Department for a health study. A health study was subsequently made, which found no proven health hazard, but confirmed significant odour problems.
- Evaluation of odour concerns by Ministry staff found that most of the odour complaints were caused by stack emissions, primarily hydrogen sulphide. Other sources were the flare, sour water stripper and the waste water treatment plant.
- In the summer of 1989, gasoline from the Oakville Plant was found to be in excess of the interim vapour pressure regulation. Charges have been laid and the company is to appear in court on January 29, 1991.
- In November 1989, the company started up a new \$10 million effluent treatment plant to bring their discharge into compliance.

CURRENT SITUATION:

- The refinery continues to be out of compliance at this time on two effluent parameters, total residual solids and phenols. Monitoring at the new effluent treater shows that there is a problem with storm water run-off. Although the effluent treater is performing satisfactorily, inert solids from storm run-off are putting the discharge out-of-compliance. The Company is upset that they are being monitored on the discharge for total solids instead of volatile solids.
- In August 1989, characterization of the effluent under MISA showed that dioxins and furans in the final effluent were in excess of international criteria. However, further sampling for dioxins and furans showed non-detectable levels in the discharge. The Oakville plant has complied with other MISA requirements for the Petroleum Sector.
- Odour complaints continue to be received on this source. The complaints increased in 1990 due to plant shutdown, start-up of process units and equipment breakdown. The problems were continuous this summer. As a result, a petition with about 1,200 signatures has been received from the local community.

- On September 14, 1990, the Ministry investigated a serious odour incident in the community around Petro-Canada and found that the Total Reduced Sulphur (TRS) level that evening was as high as 211 ppb. The requirement for TRS is 27 ppb. Violation Notices have been issued for this incident and sent to the Investigations and Enforcement Branch with a recommendation that charges be laid. This incident is quite serious in that it appears to have happened without Petro Canada's knowledge.
- On November 30, an abatement program was developed with Petro-Canada that included the phasing out of fuel oil (high sulphur) burning at the Oakville refinery and adjusting its fuel burning facilities to use 100% natural gas. The company has also developed a Sulphur Dioxide Action Plan and will be controlling odours from the Marketing Terminal. The program is expected to be completed by December 1991.
- Although this program will result in lower levels of combustion pollutants, it will not eliminate the problem. As the residential community is beside the refinery, there is insufficient buffer between the two incompatible uses to disperse residual odours.
- The abatement program was presented to the public at a meeting on December 13, 1990. Approximately 600 people were in attendance at this meeting. The public expressed two concerns:
 1. MOE air standards (e.g., TRS) are too high; and
 2. the ambient air monitoring station on Bronte Road may not be in the correct location. Over the last two years the station showed that except for September 1990, all air standards have been met and that air quality (AQI) has been generally good.
- The Ministry plans to undertake another mobile air survey in the community around Petro-Canada.

FUTURE ACTION:

- Ensure Petro-Canada continues to abate odour sources and completes its abatement program on schedule.
- Review the present location of the air monitoring trailer in Oakville and relocate the unit if possible.

Central Region

**THE REGIONAL MUNICIPALITY OF PEEL NEW LANDFILL SITE VIB
CITY OF BRAMPTON, REGION OF PEEL**

BACKGROUND:

- Most waste currently generated in the Regional Municipality of Peel is disposed of at the Britannia Road Landfill. Based on current estimates, the landfill is expected to be full to approved contours by December 31, 1991.
- In early 1988, the municipality submitted a draft environmental assessment (EA) document recommending a site in Brampton referred to as Site VI.
- MOE review of the EA document was critical of Peel's entire site selection process resulting in Peel placing a temporary hold on the EA document.
- Site VIB is located in the northeast portion of the City of Brampton and is bounded on the east by Turtle Creek, on the south by Countryside Road, on the west by Torbram Road, and on the north by Mayfield Road. Site VIB forms approximately 200 acres of the originally approved Site VI which had a size of 535 acres.
- The proposed capacity of Site VIB is 3.2 million tonnes.

CURRENT SITUATION:

- Site VIB has been proposed as an interim landfill site pursuant to Peel's membership in the Solid Waste Interim steering Committee (SWISC). The interim site would serve its residents during the period 1992 - 1996 inclusive pending the development and approval of a long term landfill.
- SWISC has endorsed Site VIB as it meets the criteria.
- Staff of the GTA Waste Management Task Force reviewed the information provided on Site VIB and recommended that the undertaking (approvals process) be exempt from the Environmental Assessment Act process.
- The former Minister signed the Order in Council and Exemption Order and the Municipality of Peel was notified in writing that their request for exemption dated February 16, 1990 to establish, operate and close a waste site known as VIB has been approved with conditions pursuant to Section 29 of the Environmental Assessment Act.
- On November 21, 1990, it was announced that the EA exemption for Site VIB was suspended.
- Because of the suspension, Peel immediately stopped work on its search for a long-term landfill until further clarification is received from the Province.

FUTURE ACTION:

- Continue to work with Peel on its Waste Management Master Plan in the development of a long-term landfill site.

Central Region

SOUTH RIVERDALE SOIL REPLACEMENT PROJECT: TORONTO

BACKGROUND:

- For several decades lead emissions from Canada Metals, from other industries and from gasoline engines, have contaminated the soil in South Riverdale.
- The South Riverdale Community Health Centre founded in 1976 played a major continuous role in the collective effort to resolve this lead contamination problem.
- Blood surveys revealed that children in the area under six years of age had elevated blood-lead levels.
- Due to the potential risk to the health of children under six, the Medical Officer of Health recommended the replacement of some soil in the blood-test area.
- On November 19, 1986 the Minister announced that some of the lead contaminated soil in South Riverdale would be removed.
- The Minister established the Lead-in-Soil Committee to determine a scientifically defensible clean-up criterion.
- On June 25, 1987, the Minister announced a soil replacement criterion of 500 ppm lead to a depth of 30 cm, on residential and public properties.
- The South Riverdale Community Health Centre, with funding from MOE, hired a Community Information Officer to assist with the community liaison and public information needs of the project.
- A store-front site office within the clean-up area was established in June 1987 by the project consultant to include accommodation for the Community Information Officer.
- MOE provided an Environmental Assessment Exemption Order in order to expedite the project.
- Representative soil samples from the area were used to classify the waste soil as suitable for disposal in sanitary landfills in accordance with the Environmental Protection Act, Regulation 309.
- Clearance was obtained from Metro Toronto Works for the disposal of the waste in its landfill sites, Keele Valley and Brock West.
- A cost-sharing agreement between MOE and the City of Toronto was signed in December 1987. This agreement included funding for a house-cleaning program.
- The agreement provided for thorough house-cleaning to be conducted according to City Health Department protocol, following soil replacement.

- Soil replacement was initiated in 1987 as a pilot study and large scale replacement was carried out in 1988. All work, including the house-cleaning, was completed by December 1989.
- About 1,000 residential properties were involved in the program at a total cost of approximately \$10 million.

CURRENT SITUATION:

- In accordance with the Ministry/City of Toronto cost-sharing agreement, the City conducted a blood-testing program on young children in the area and within a control area, in the fall of 1990, to assess the effectiveness of the clean-up program. Analysis of the results of the blood survey is in progress with a report expected in late winter.
- On November 28, 1990, a director's order was issued to Canada Metal requiring the company to retain engineering consultants to carry-out an environmental study to assess housekeeping, maintenance and employee training programs with respect to lead emissions.
- The Ministry is undertaking an investigation into the air quality exceedances. Legal action will be taken for any substantiated violations of the Environmental Protection Act.

FUTURE ACTION:

- The environmental audit report required by the director's order is to be submitted by March 28, 1991. The report findings will be used as the basis for a subsequent order to ensure that the plant is run in the safest manner possible.
- Unless successful litigation is impossible, the Ministry is prepared to proceed through the courts in order to recover soil clean-up costs from the company.
- Continuing monitoring of the area for lead in air and soil.

Central Region

ST. LAWRENCE CEMENT (SLC)
CITY OF MISSISSAUGA, REGION OF PEEL

BACKGROUND:

- St. Lawrence Cement is the largest cement plant in Canada with an annual production capacity of 1.9 million tonnes of cement. The plant has been in continuous operation since 1956 and manufactures the three most commonly used types of cement; normal portland cement, high early strength cement and masonry cement. The plant also manufactures speciality cement products.
- Although the company meets the Ministry's air emission standards, it does not meet plume opacity standards. In modelling to determine concentration at point of impingement, the critical elevated receptor is the top of an apartment building on Roche Court, approximately 4,600 m downwind of the stack. The operation of the site is regulated by Section 8 Certificates of Approval.
- St. Lawrence Cement burns waste solvents along with coal. Chlorine is a component in the manufacture of low alkaline cement. During the burning process, most of the chlorine from the halogenated waste solvents is absorbed into the clinker (cement).
- On October 3, 1988, St. Lawrence Cement filed a draft Environmental Assessment document for an Energy-from-Waste project with the Ministry. The company proposes that Refuse Derived Fuel (RDF) will replace approximately 20% of the coal (250,000 tonnes per year) now burned. Approximately 100,000 tonnes of RDF will be recovered from 250,000 tonnes of municipal solid wastes per year.
- The Ministry's technical committee finalized their review of the draft EA documents and advised SLC on September 8, 1989, of the need to improve the performance of the air pollution control equipment, before any proposals are presented that may have even a small adverse effect on air emissions.
- Air Resources Branch completed a mobile air monitoring survey for this source while solvents were being burnt. The survey was initiated the week of June 5, 1989. In addition to routine parameters, Air Resources Branch tested for PCBs and dioxins. The testing showed all contaminants from SLC to be within Ministry Standards, Guidelines and Criteria. Emissions from this plant do not pose a health risk.
- MOE Approvals have been working to amend St. Lawrence Cement's Section 8 Certificate of Approval for burning of waste solvents at this plant. The original Certificate was issued on November 28, 1975. This approval is for the burning of a complex mixture of chlorinated hydrocarbons in a chlorinated aromatic hydrocarbon base, excluding pesticides residue and polychlorinated biphenyls at a maximum input of 0.4% chlorine by weight of clinker.

CURRENT SITUATION:

- A Director's Order requiring the company to install state of the art technology (baghouse) on Kiln 3 to control opacity, has been finalized. This action is necessary as the company will not install a baghouse and does not agree that baghouses will solve the problem. The Notice was served on SLC on December 14, 1990.
- Burning of waste oils and solvents at this plant is being addressed by Central Region in association with the Waste Management Branch and Legal Services Branch. Staff have requested WMB to review this matter and advise the regional office as to the classification of waste solvents under Regulation 309 (waste derived fuel).
- Eight Provincial Offences Act tickets have been issued to SLC under the opacity regulation. The maximum fine is \$153.75 per ticket. A plea of guilty by SLC on these tickets would have served as a first conviction. A trial date has been set for April 22 and 23, 1991. This action was required because the opacity of the plume has been worse in 1990 than in previous years. Several complaints on cement fallout have been received within the last two weeks confirming that the on-going programs at SLC have been ineffective.
- In September 1990, the company advised the Ministry that waste solvents with a PCB level of 37 ppm were received and burnt at its facility. The Ministry issued a letter on September 8, 1990 advising the company that it received wastes in contravention of its Certificate of Approval and requested that SLC stop receiving and burning waste solvents until PCB monitoring equipment is purchased and installed. No waste solvents have been received since September 9, 1990. This incident is under investigation by IEB.
- The Ministry has drafted the Certificate of Approval which is to replace all Certificates issued in 1975 for burning waste solvents and oils. Since this Certificate will authorize the burning of waste solvents at this source, management has been asked whether to proceed with the document in light of the Ministry's investigation on burning of solvents at SLC.

FUTURE ACTION:

- Determine the most appropriate action to be taken with respect to the burning of waste solvents and oils at this plant.
- Issue Section 17 Order in January 1991.
- Determine if amended Certificate of Approval (Air) should be issued at this time.

Central Region

**ST. MARY'S CEMENT, BOWMANVILLE
TOWN OF NEWCASTLE**

BACKGROUND:

- Many issues currently relate to the existing and future operation at this site. The current operation is predicated on the mining of raw material and processing on-site to produce cement.
- The company has been operating a limestone quarry, a plant with kilns to produce cement from the limestone, and a site where electrostatically precipitated kiln dust is piled, at this location since 1969.

CURRENT SITUATION:

- Concerns have been raised by local residents regarding the monitoring of blasting and vibration. The Company retained the services of a consultant to monitor the blasting and vibration. Although the municipality has a responsibility to control sound and vibration, the municipality has exempted licensed pit and quarry operations from the by-law.
- Concern has been expressed that the current and future quarrying operations may interfere with the existing groundwater supplies of nearby residents. Based on hydrogeological work undertaken to date by the consultants retained by St. Mary's Cement, groundwater interference is not anticipated.
- The company has provided information obtained from Agriculture Canada that the kiln dust from the cement producing operation has been classified for use as an agricultural liming material and potassium fertilizer.
- The Minister has received a number of requests to designate the expansion of the dock at St. Mary's Cement under the Environmental Assessment Act (EAA).
- Regional staff are currently monitoring total dustfall in the vicinity of the Port Darlington Community. The monthly monitoring results have not shown unusual dustfall levels which can be attributed to the St. Mary's Cement facility.
- The Ministry of the Environment requested the Company to submit an application for a waste disposal site for the kiln dust by November 15, 1990.
- The Company has found a customer for the kiln dust who is selling it under the Department of Agriculture registered trade name of Tubrick as a soil pre-conditioner for use in application for both human and animal food supply.
- The Company insists that the kiln dust is not a waste and therefore not subject to Part V Approval under the Environmental Protection Act.

FUTURE ACTION:

- Ministry staff have requested that additional investigation and testing be undertaken on the site to confirm the preliminary findings of the consultant's hydrogeological study.
- An investigation of the kiln dust disposal will be conducted by the Ministry and legal action may be considered.
- A decision to designate the dock expansion under the EAA has not been made to date. The Environmental Assessment Branch has completed its review of the proposal, and will be forwarding the recommendations to the Minister in the near future.

Central Region

TEXACO CANADA INC. - PORT CREDIT PLANT DECOMMISSIONING
CITY OF MISSISSAUGA

BACKGROUND:

- A refinery complex was in operation at the Port Credit site from 1932 to 1978. However, Texaco did not assume operations until 1957.
- Since 1978, when Texaco's Nanticoke facility commenced operations, the Port Credit plant served primarily as a solvent refining plant. The Company ceased operation in 1985.
- The refinery site is divided into three distinct areas; north property, marketing area and south property.
- The north property comprises 133 acres and is divided into a 19 acre landfarm, 30 acre tank farm and 89 acre agricultural (farmland) area. Future intended land use for this property is residential.
- The marketing area is a 13 acre site which contained the Bulk Station and Administration Buildings. Future land use is commercial/retail.
- The south property covers an area of 75 acres and contained all of the manufacturing facilities and a tank farm. Future intended land use is industrial/commercial.
- In 1982, Texaco retained Golder Associates to conduct detailed hydrogeotechnical investigations to ensure that areas of environmental concerns were identified and the site made suitable for future land use.
- The focus of Texaco's site investigation has been the north property landfarm. It is in this location that oily wastes were disposed of over the years.
- In 1984, a number of buried 45 gallons drums were uncovered in the north property landfarm. By checking records, Texaco discovered that the drums containing mercaptans, catalyst and oily wastes were buried in the landfarm area in 1965. Although the drums and associated soils were excavated and disposed of at Tricil, soils with a residual mercaptan odour remain in place.
- In 1989, Esso purchased Texaco.

CURRENT SITUATION:

- Work on the north property tank farm is now almost half complete. Esso expects the work on the north property to be completed by December 31, 1991. The clean-up involves excavating all soil down to bedrock, spreading and tilling soils with a residual petroleum odour to dissipate the hydrocarbon odours, and landfilling the cleaned soil

into excavated areas. Stained soil is removed from the property and disposed of at an approved landfill. Residential clean-up standards are being met on this site.

- The Hazardous Waste Advisory Committee considered a delisting petition recently and is basically in agreement that the soils in the landfarm should be managed as a non-hazardous waste. Esso has been requested to hold public meetings on the delisting petition.
- The clean-up of the marketing area is close to being complete. Contamination along the east boundary of the marketing area has migrated into some residents' backyards. As soon as permission is granted, Esso will complete the clean-up and turn the site over to the new owner - Pen Equity Properties Limited for commercial development.
- During the clean-up of the marketing area, it was found that some residual petroleum hydrocarbons had migrated into bedrock approximately 10 to 15 feet below surface. Because the bedrock is unweathered shale and fractured, it was not possible to determine the extent of contamination and remove the contaminants. It is proposed that a Section 17 Order be issued on this site requiring registration on title and long-term groundwater monitoring.
- Clean-up of the south property is only in the preliminary stages. Extensive testing has not been conducted on the site. Preliminary investigations show high contamination of soil and groundwater in localized areas.
- On June 8, 1990, the City of Mississauga Planning Department presented a plan to the public which involved a proposal to pave over the 75 acre south property and provide parking and boat storage to waterfront marinas (900-slip offshore marina). The city wants to acquire the south property because it does not want to see industrial redevelopment of the land and is concerned that Esso will be unable to clean-up the site to allow residential development.
- Due to public concerns about health around the clean-up site, the MOE set up dustfall jars in the local community and completed a mobile air quality survey in 1989. Both surveys showed that all emissions from the clean-up operations were within MOE Standards, Objectives and Criteria.

FUTURE ACTION:

- Continue to work with Esso to ensure that all properties are cleaned-up and to ensure that they are suitable for the future intended use.

Central Region

TONOLLI CANADA LIMITED
CITY OF MISSISSAUGA

BACKGROUND:

- Tonolli operates a large secondary lead smelter in a primarily industrial area of Mississauga and is considered the primary source of elevated concentrations of lead in the air and soil as far as 600 metres off property.
- Until 1985, Exide industry operated a lead processing plant approximately 300 metres downwind of Tonolli, and is considered to be the secondary source of lead in soil at the affected residences.
- On July 28, 1987 a Control Order was issued to Tonolli which required control measures to be implemented.

CURRENT SITUATION:

- Soil lead surveys conducted in the fall of 1987 by the Ministry concluded that 74 of 296 residential properties downwind of the Tonolli and Exide plants have soil lead concentrations equal or exceeding 500 ppm. The report was released on July 14, 1988.
- In the fall of 1987, the Peel Health Department tested 71 children in the area for blood lead levels. Two children had blood lead levels of approximately 15 mg/DL which exceeds the Peel Region median of 10 mg/DL. The families of these two children received preventative counselling from the health unit. The Commissioner of Health had indicated to Ministry staff that soil on the properties on which the two children live should be replaced by the spring of 1989.
- A public meeting was held on September 8, 1988 to explain the Ministry soil-lead report and the Health Unit blood lead testing results to local residents and municipal officials.
- The Ministry, the Region and the Company agreed to share the cost of the soil removal from all the properties where lead levels are greater than 500 ppm.
- Soil removal from the above properties was finished in October 1990, at the cost of \$2 million.
- The control order issued in 1987 has been completed. Recent air quality monitoring found lead emissions from this facility to be in compliance with the Ministry's criteria. Abatement measures implemented by Tonolli have reduced lead levels from 25 ug/m³ to less than 5 ug/m³ (criteria).

FUTURE ACTION:

- The remaining contaminated areas under consideration for further attention, consist of the municipally-owned boulevards in the industrial area north of the Sherway and Applewood residential communities. A detailed study of the extent and concentration of the contamination on these public properties was completed in November 1990. This study, will provide the necessary data for the design and budgeting of a cost-effective, remedial program compatible with the land use of the area, for possible implementation in 1991. The cost would be expected to be about \$1.6 million.

Central Region

TORONTO HARBOUR COMMISSIONERS SOILS REMEDIATION PROPOSAL

BACKGROUND:

- Toronto Harbour Port Lands were created from the successive infilling of the former Ashbridge's Bay marsh from 1912 onward with material dredged from Lake Ontario.
- Numerous subsurface soil investigations within the Port Area have shown that much of the soil is contaminated with oil/grease, metals, volatile organics, and other contaminants and does not meet the Ministry's clean-up guidelines. A gross estimate of the amount of contaminated soil is in excess of 2 million tonnes.
- Toronto Harbour Commissioners plan to spend \$4,300,000 on a soil clean-up feasibility study using new clean-up technology.

CURRENT SITUATION:

- On January 18, 1991 the Harbour Commission and their consultants SNC Inc., and Environmental Watch Inc. met with the Ministry to outline the proposed study, technology and public liaison.
- The soil treatment being proposed is as follows:
 - Stage 1: High-pressure soil wash
 - Stage 2: Heavy metal extraction
 - Stage 3: Bioreactor for Organic contamination
- On January 23, 1991, the Toronto Harbour Commissioners held a Press Conference to announce the soil clean-up feasibility study.

FUTURE ACTION:

- A detailed proposal will be submitted to the Ministry for review. The Ministry will issue any approvals that may be required before the full-scale pilot studies are carried out.

- Part V approvals will not be required if the Toronto Harbour Commissioners demonstrate that it is a pilot plant operation for the purpose of proving the validity of the proposed technology.

Central Region

**"TORONTO REFINERS AND SMELTERS COMPANY"
LEAD CONTAMINATED SOIL**

BACKGROUND:

- Toronto Refiners & Smelters Company operated a secondary lead refining plant for waste lead automobile batteries from the 1940s until February 20, 1989 when they vacated the property.
- Lead air pollution arising from their smelting and refining operations contaminated the surrounding residential neighbourhood.
- Lead polluted residential soils were replaced and the clean-up was completed in August 1990.
- The City of Toronto expropriated the property and assumed the clean-up under a Director's Order from the Ministry.

CURRENT SITUATION:

- The site is now owned by the City of Toronto.
- There is a Director's Order in force against the city to secure the site against vandalism, and to hire a consultant to have the site decommissioned.
- The City has empowered its Board of Health, which in turn has formed the Toronto Refiners and Smelters (TR&S) Steering Committee, chaired by Councillor Martin Silva and Vice-Chair Jean Jabanowski to oversee the soil clean-up.
- The Committee includes MOE, members from the Niagara (Street) Neighbourhood Association, the City of Toronto, and the Board of Education.
- The TR&S Steering Committee has hired Monenco Consultants Ltd., who completed a soil sampling survey of the property in October 1990.
- The draft report on soil sampling was prepared by the consultant, and discussed with the TR&S Steering Committee in November 1990.
- The cost for soil replacement and decommissioning is tentatively estimated at \$16 - \$25 million.

FUTURE ACTION:

- The Niagara Neighbourhood Association (NNA) plans to hire its own consultant to review the draft report and make recommendations.

- The NNA has suggested that the consultant proceed with clean-up plans while the NNA consultant reviews the draft report.
- The TR&S Steering Committee is to be given a final copy of the sampling survey.
- The Committee is to review the report and approve the plan to proceed with excavation and clean-up.
- Clean-up essentially means excavating all areas with 500 ppm lead in soil and trucking the soil to an approved waste landfill site.

Central Region

YORK-DURHAM SERVICING ISSUES

BACKGROUND:

- Urban areas of Newmarket, Aurora, Richmond Hill, Vaughan and Markham are serviced by the York-Durham System.
- York-Durham capacity is finite and development beyond currently approved official plans may require additional capacity.
- The Region of Durham, has objected to approval of certain Official Plan Amendments in the Region of York due to concerns with available capacity.
- Development pressure also continues to grow in municipalities adjacent to the York-Durham service area.
- Last winter Regional Works Department placed before York Council, a proposal for a Mid-York collector, which could provide the additional capacity for York in the York-Durham System by providing a second trunk leading directly to Duffin Creek STP. York Regional Council turned down the concept at that time.
- No plans currently exist or are proposed to increase the sewage capacity of 82.34 mgd allocated to the Region of York, or to expand further the Duffin Creek Sewage Treatment Plant. However, growing need may resurrect consideration of the Mid-York collector. This would also necessitate consideration of expansion of the Duffin Creek STP beyond its ultimate planned 160 mgd capacity.
- On May 25, 1990 representatives of the Region of York and the Region of Durham, the Office of the GTA and staff of the Ministry met to discuss utilization of the York-Durham System. The Regions presented to the Province the following items:
 - (1) Capacity of the York-Durham system will be expressed in terms of the total hydraulic capacity of the system (164 mgd).
 - (2) This hydraulic capacity is to be shared equally between the Regions of York and Durham (82 mgd each).
 - (3) The Regions of York and Durham will be considered service areas and that there will be no restrictions to the expansion of the system within the Regions.
 - (4) Any capacity required by the Province will have to be made available by the Province.
- Provincial representatives agreed changes are necessary and accepted points (1) and (2) above. Concern was expressed with respect to items (3) and (4) above.

CURRENT SITUATION:

- Physical capacity of the sewage trunk interceptor system in the Region of York is 82.34 mgd. Existing development flows and current projected flows from committed and proposed development would utilize all remaining capacity.
- Solving growth needs in Holland Landing, Sharon or Whitchurch-Stouffville by connection to York-Durham System is technically feasible, but would require expansion to both the trunk sewers and the Duffin Creek Sewage Treatment Plant.
- The Ministry of Government Services in conjunction with the Ministry of Housing and the Ministry of Municipal Affairs are pursuing the residential development of 500 acres of land in the eastern part of the Town of Markham.
- Water from Metro Toronto to service additional growth in the southern part of York Region including Markham, has not been secured through legal agreements.

FUTURE ACTION:

- Sewage treatment capacity interests for Holland Landing, Hamlet of Sharon and Stouffville may foster interest in a Mid-York Collector.
- It is understood that the Ministry of Municipal Affairs is drafting a revised agreement between Metro, York Region and the Province with respect to future water servicing.
- It is also understood that the committee of Deputy Ministers is to consider resolutions to items (3) and (4) above, and finalize a new water agreement which is necessary to establish the servicing viability of the Markham lands.
- Following resolution of items (3) and (4) above, for the Markham lands, technical solutions to the location of trunk connection to the York Durham System would be needed. Connecting downstream, in the Region of Durham, may avoid issues of potential over commitment in the York trunk and/or of borrowing capacity from Durham Region.
- MOE has received a Flow and Development Monitoring Report from the Region of York. This monitoring may eventually identify and substantiate capacity for additional development within the York portion of the York-Durham System.
- Items (2) and (4) above, may permit the Regions to force Province to pay for any additional capacity needed for provincial development initiatives, e.g., Markham Lands, Seaton.

NORTHEASTERN REGION

AGNICO EAGLE MINES LTD. - TOWNSHIP OF COLEMAN

BACKGROUND:

- In August 1989, the Company suspended operations at its Silver Refinery in the Cobalt Mining Camp. This action prompted an MOE request for an environmental audit of the facilities in connection with mothballing activities.
- Inspections by MOE staff revealed that various wastes produced over the operating period were disposed of or stored contrary to Regulation 309 made under the Environmental Protection Act. These wastes include: arsenic, cyanide, PCBs and a variety of heavy metal concentrates.
- The Company engaged an environmental consulting firm to conduct a waste audit and recommend remedial actions. Preliminary findings by the consultant confirmed a number of instances of illegal disposal and storage.

CURRENT SITUATION:

- The consultant's final report on proposed remedial measures is expected by mid-February 1991.

FUTURE ACTION:

- MOE staff will meet with the Company after review of the consultant's report to agree on a remedial action plan.
- The Ministry intends to commence investigations in February 1991 to determine if charges for past disposal practices are warranted.

Northeastern Region

**ALGOMA ORE DIVISION
A PARTIAL FAILURE OF THEIR TAILINGS DAM**

BACKGROUND:

- On January 13, 1991, Algoma reported that a small internal dike within their tailings system was breached earlier in the day, resulting in the discharge of approximately 800,000 Imperial gallons of clarified tailings pond water, pH of 11, to the Magpie River. No solid tailings were discharged.
- The Company immediately proceeded to stop the discharge and to arrange for repairs to the system.
- The decant which failed was installed to act as an emergency spill way. It had been scheduled for removal later in 1991.
- The Company took water samples upstream and downstream of the spill in the Magpie River. It is not known at this time, what, if any, impact the discharge had on the river.
- Ministry of Natural Resources (MNR) and Ministry of Northern Development and Mines (MNDM) staff have been advised of the partial dam failure for purposes of ensuring proper remedial action is taken with respect to the dam structure.

CURRENT SITUATION:

- On January 14, 1991, MOE and MNR staff inspected the tailings area and they found the situation to be under control. The spill ceased on January 13, 1991 and MNR have indicated thus far, there is no evidence of adverse effects on the Magpie River.
- Samples of tailings pond water and the Magpie River downstream of the tailings pond discharge have been taken in the event legal action is to be pursued.
- A consultant responsible for designing the dam is on site to supervise removal of the failed decant system and the repairs to the dam. Repairs are expected to take from two to three weeks.

FUTURE ACTION:

- MOE staff will audit the Company's activities with respect to the decant removal, dam repair and they will liaise with MNR and MNDM staff.
- MOE staff will prepare an occurrence report based on the finding of their inspections.

- The Company will be submitting a report on the incident.

Northeastern Region

ALGOMA TIRE RECYCLING - SAULT STE. MARIE

BACKGROUND:

- Subsequent to the Hagersville incident, MOE and the City Fire Department identified five significant waste tire sites in the Sault District. Security services were provided at MOE's expense where and when required.
- On October 1, 1990, the City's landfill site (formerly Cherokee) Certificate of Approval (C of A) was amended to allow for the storage of waste tires.
- On October 11, 1990, the City's landfill site C of A was amended requiring the City to provide security at the site effective November 9, 1990 until the bulk volume of uncovered used tires does not exceed 300 m³.
- The City Fire Department issued Orders under the Fire Marshal's Act (FMA) for the cleanup of all the sites by November 30, 1990.

CURRENT SITUATION:

- District staff met with the Mayor, local MPP, Economic Development Commission Chairman, Fire Chief and representatives of various Government Agencies on November 30, 1990.
- Mr. Abby Nash of Algoma Tire Recycling requested the meeting to outline his proposal to construct a tire shredding and crumbing plant in Sault Ste. Marie capable of handling one million tires per year.
- Operations at the plant are expected to start next spring, employing approximately 20 people.
- Concerns for dust, noise, zoning and fire were highlighted at the meeting.
- An opportunity for reduced transportation costs of blue box products from back haul tire transports will also be explored by the City.
- The City landfill site is the only site not in compliance with the FMA. Compliance and subsequent termination of security at the other four sites started on July 19, 1990 and ended on December 28, 1990.
- On November 30, 1990 the Fire Department gave the City an extension for compliance with the FMA to December 18, 1990 to allow the City time to review the recycling option.
- On December 14, 1990, the Fire Department gave the City an extension for compliance with the FMA to March 31, 1991, to allow the City time to review/implement the recycling option.

- According to the Fire Department, security, site separation and access all comply with FMA. There is no fire hazard.
- The only area of non compliance with the FMA is water services. The tires will either be recycled or covered with 150 mm of non-combustible material, because the City cannot afford to install the water services.

FUTURE ACTION:

- District staff will work with the proponent and the City to ensure that the facilities are not a source of pollution.
- District staff will liaise with the Fire Chief to ensure that measures, currently underway at the City waste tire site to reduce a fire/emission potential, are effective.
- The City will, through the MPP, ask the MOE for funds associated with clean-up costs of tires at the City landfill site.

Northeastern Region

CITY OF NORTH BAY - LANDFILL SITE

BACKGROUND:

- An Environmental Assessment Board hearing was convened in 1987 to consider a City request for extension of its site Certificate of Approval (C of A) which was due to expire on December 31, 1987. The Board granted a three-year extension to December 31, 1990, to allow time for the City to establish a new site. The Federal Ministry of Transport (MOT) opposed the extension based on a potential hazard to aircraft posed by gulls which frequent the site. The North Bay airport is located within one kilometre of the site.
- By the end of 1989, it became apparent that commissioning of a new landfill site could not be achieved coincident with the December 31, 1990 expiry date of the existing site C of A. The City launched a contingency landfill search which culminated with the conclusion that the only viable solution would be to continue use of the existing landfill site. The existing site can accommodate additional waste for up to eighteen months under approved contours.
- On November 15, 1990, the City submitted a formal request for continued use of its existing landfill site.
- On December 24, 1990, the Ministry issued an Emergency C of A for extended use of the existing site. The C of A expires when the originally approved capacity is reached, or on July 1, 1992, whichever comes first.
- Respecting Ministry of Transport concerns over a potential gull hazard, the Emergency C of A requires maintenance of existing bird control measures. The City's application demonstrated that the number of bird strikes have been substantially reduced in recent years and are comparable to other airports.

CURRENT SITUATION:

- The City is preparing a final written response to the Government review of its Environmental Assessment (EA) document covering the establishment of a new landfill site. This response is expected shortly.
- The project schedule calls for commissioning of the preferred site by June 30, 1992. This appears realistic providing that outstanding issues are adequately within the EA document.

FUTURE ACTION:

- The Ministry will closely monitor the project.

Northeastern Region

CHAPLEAU - EXPANSION OF WASTE DISPOSAL SITE

BACKGROUND:

- The Township submitted an information package to the Ministry which outlined the need to recognize that an error on the original application had restricted landfilling to a 0.8 hectare area.
- Staff have reviewed the situation. They have concluded that a Certificate of Approval could not be revised and that EA requirements must be fulfilled prior to site expansion.
- The Reeve has written to the Ministers of Natural Resources, Municipal Affairs and the local MPP for assistance.

CURRENT SITUATION:

- Township Council has discussed with representatives from the Ministry of Municipal Affairs, Ministry of Natural Resources and Ministry of Environment ways of recouping costs incurred by outside users of the waste disposal site. An Inter-Ministry Committee chaired by Municipal Affairs has been formed to investigate ways of implementing a user fee system.
- The Township is waiting for the Ministry of the Environment's decision regarding the applications for funding from the various waste management programs.
- Landfilling at the site is being restricted to the approved 0.8 hectare area.

FUTURE ACTION:

- The Township is to decide on the course of action to follow for the approval of site expansion.

Northeastern Region

**DIEPDAUME MINES LTD./ANYOX METALS LTD.
APPEAL OF REVOKED CERTIFICATES OF APPROVAL**

BACKGROUND:

- Diepdaume Mines is comprised of an ore processing mill, an underground shaft and a tailings management system. The facility, formerly owned by Preston East Mines, is owned by J.P. Sheridan.
- A Certificate of Approval (C of A) was obtained in 1985 to process Diepdaume ore along with ores from other properties owned by J.P. Sheridan. The C of A was issued with conditions requiring submission of a re-vegetation/closure plan and a receiving water impact assessment.
- In 1987, a C of A for a waste transfer site was obtained by Anyox Metals Ltd., owned by J.P. Sheridan, to temporarily store 100,000 tonnes of incinerator ash from the Ashbridge Bay Water Pollution Control Plant in Toronto on the Diepdaume property. Anyox Metals proposed to utilize the Diepdaume ore processing facility to extract precious metals from the ash.
- No applications were submitted to have the tailings management system C of A for Diepdaume Mines amended to provide for processing of the incinerator ash.
- Submissions required under the C of A for Diepdaume Mines were not made. In January 1990, charges for non-compliance with the C of A were successfully prosecuted.
- As of early 1990, 50,000 tonnes of incinerator ash were stockpiled at the Anyox Metals' transfer site. Metro Toronto suspended haulage due to Ministry concerns over lack of action by Anyox Metals and Diepdaume Mines to process the material.

CURRENT SITUATION:

- In 1990, the Ministry issued notices of revocation to Diepdaume Mines and notice of amendment to Anyox Metals. Both notices were appealed. Hearings were conducted.
- In December 1990, the company filed for judicial review of the Diepdaume appeal hearing.

FUTURE ACTION:

- The Ministry awaits a date for the resumption of the Anyox Metals hearing.

Northeastern Region

GORE BAY AND SURROUNDING TOWNSHIPS' LANDFILL SITE

BACKGROUND:

- The Townships have attempted to negotiate an extension to the landfill site lease scheduled to expire December 31, 1990; however, by letter dated November 21, 1990 from the owner's lawyer, they were advised that no extension of the lease will be granted.
- By letter to this Region's Director dated November 28, 1990, the Chairman of the Landfill Committee requested assistance from this Ministry in the form of a Ministerial Order or whatever else this Ministry could do to help the Townships to continue usage of the site.
- Town of Gore Bay and Surrounding Township's Landfill Site Agreement Expired on December 31, 1990.

CURRENT SITUATION:

- MOE staff recommended that an application for a transfer site be used while the Townships acquire the existing site which is privately owned.
- The chairman of the Townships' Landfill Committee was advised of this decision and provided with an application form on December 7, 1990. On January 7, 1991, the Application for the Transfer Site and the corresponding Operational Plan were received.
- The Application and Operational Plan were reviewed and on January 11, 1991, a letter was faxed to the applicants advising them to provide further clarification and details with respect to many matters which were incomplete in their documentation.
- The Town printed a Notice in the local newspaper requesting that, until the Transfer Site is approved, the residents keep their garbage on their own properties.

FUTURE ACTION:

- MOE will review the completed application for a transfer site and impose appropriate conditions on any Certificate of Approval issued in response to the application.
- Use of the transfer site will be conditional on the Townships proceeding to acquire the existing landfill site and will therefore be an interim solution only.

Northeastern Region

**GOULARD LUMBER, TOWNSHIP OF SPRINGER
WOODWASTE SILO BURNER**

BACKGROUND:

- The Company operates a sawmill in the Township of Springer for the production of dressed lumber. All wood waste generated by the mill is burned in a silo burner.
- Since 1986, abatement staff have received sporadic complaints of smoke and particulate emissions from a resident of a nearby subdivision known as Evansville.
- Complaints registered in January and March 1990 resulted in a Ministry investigation.
- The investigation report recommended that prosecution was not warranted. The report suggested that, with an absence of enforcement action between 1986 and 1989, a sudden prosecution could be viewed as an abuse of process. Secondly, the investigation showed that residents are minimally bothered.
- Abatement staff have been pursuing a voluntary abatement program to find an alternate means of woodwaste disposal. Various options are under consideration including the installation of a woodwaste boiler, establishment of a landfill site and hauling the waste to a proposed co-generation plant in Quebec.

CURRENT SITUATION:

- As a short term measure, the Company has dedicated an operator to work full time on the woodwaste burner to maximize its efficiency. According to the Company, this measure has significantly reduced emissions. Improved burner operation has also been noted through periodic observances by abatement staff.
- The Company has recently received positive indications from the Town of Sturgeon Falls that it might be prepared to accept the woodwaste at the municipal landfill site. Negotiations have commenced between the two parties.
- The Company has implemented a public liaison program by issuing a news release to local residents advising on its efforts to abate the problem. This will be followed up by a Public Meeting early in 1991.

FUTURE ACTION:

- Abatement staff will continue to visibly monitor emissions from the burner and respond to complaints, as required.

- Abatement staff will attend the proposed Public Meeting to consider the views of the public in the development of abatement plans.

Northeastern Region

**GRANT FOREST PRODUCTS, ENGLEHART
NON-COMPLIANCE WITH CERTIFICATE OF APPROVAL**

BACKGROUND:

- A Certificate of Approval (C of A) was issued in 1988 enabling the company to install a new process line and ancillary air abatement equipment.
- A condition of that certificate required that the company either install appropriate air abatement equipment on the old line or install modern process equipment since stack testing data revealed that Regulation 308 standards could not be met.
- Due to financial problems incurred by a soft waferboard market, problems with commissioning the new line and a major fire, the company was unable to replace the old line or install pollution abatement equipment.
- Subsequent to the Ministry of the Environment confirming their financial status, the company proposed the following schedule to implement air pollution equipment:
 - (a) October 1, 1990, have operational a higher common stack for old line dryer, (this date was met).
 - (b) September 30, 1991, have operational high efficiency cyclones and wet scrubbers.
- A public meeting was held May 30, 1990, by the company on the proposed amendment to their C of A.

CURRENT SITUATION:

- The Ministry is currently reviewing the supporting documentation submitted by the company to amend their C of A. Implementation dates will be inserted as part of the amendment.
- A draft C of A has been presented to the company.
- The company is disputing several proposed conditions.
- A meeting with the company was held on January 29, 1991 to resolve the outstanding issues.

FUTURE ACTION:

- Emissions will be verified through stack testing requirements of the C of A.
- Ambient air quality will be verified in 1992.

Northeastern Region

INCO OPERATIONS - SUDBURY

BACKGROUND:

- Major programs presently underway with Inco Limited include:
 - Countdown Acid Rain. Originally implemented by Regulation in December, 1985 to reduce sulphur dioxide by 1994.
 - Fugitive emissions from uncontrolled smelter emissions.
 - Copper refinery emissions.
 - Bypasses from secondary water treatment facilities.
 - Tailings seepage.
 - Blowing tailings.

CURRENT SITUATION:

- Countdown Acid Rain program continues on schedule, semi-annual progress reports are reviewed and government responses provided by MOE through an inter-agency committee. Target emission limit is expected to be met. Total program cost estimate is \$500 million.
- Fugitive emissions have been a longstanding problem, and a spin-off benefit from the Countdown Program should provide a substantial reduction. However, excessive groundlevel concentrations are still expected, and the Company has provided a report detailing the use of an existing shorter stack for better dispersive conditions. The Ministry has reviewed and outlined concerns and has asked for these to be addressed.
- Copper Refinery emissions were problematic for arsenic levels and opacity. Recent operating amendments have corrected the arsenic problem, and the Company is operating under a recent Certificate of Approval. Opacity remains problematic, and the Company has suggested constructing a new facility at the renovated smelter complex, but anticipates doing this in 1997. The Ministry is encouraging the Company to reduce this timeframe.
- While Inco does operate water treatment facilities in addition to conventional tailings ponds, metal loadings, particularly from bypass incidents, remain a concern. The Company was issued a Certificate of Approval with conditions to address the problem and subsequently appealed. Protracted negotiations are coming to fruition, and final Certificates are expected to be issued shortly.

- Tailings seepage stations have been the subject of prosecution recently, and, in the course of investigation, suspicions of groundwater transport have been raised. The Ministry is presently completing a Provincial Officer's Report and is considering a formal requirement under the Ontario Water Resources Act (OWRA) to study the problem.
- Blowing tailings continue to be problematic even though the number of occurrences have been reduced significantly. The Company expected the relocation of tailings deposition and changing methods of operation would minimize the problem, but several instances resulting in off-property complaints have occurred. The Ministry has asked the Company to identify the areas contributing to the problems and provide a plan to address.

FUTURE ACTION:

- Continue to review and comment on Countdown Progress Reports.
- Review response to fugitive emission concerns and formulate abatement program.
- Continue to press for schedule advance for Copper Refinery replacement.
- Issues Certificates of Approval for water treatment plants and ensure conditions and study requirements are met.
- Issue study requirement to determine whether tailings seepage is impacting off-property.
- Review Company plan to correct blowing tailings and institute abatement program.

Northeastern Region

KAPUSKASING CO-GENERATION SITE FOR GREATER TORONTO WASTE

BACKGROUND:

- Stinnes Enerco Inc., Toronto, have proposed to establish an energy from waste facility in Kapuskasing in response to province wide advertisement for proposals for long term waste management systems by the Greater Toronto Area's Solid Waste Interim Steering Committee (SWISC).
- In June 1989, Stinnes Enerco Inc. presented a proposal to establish a 2,200 tonne per day municipal waste co-generation facility for the incineration of Greater Toronto Area (GTA) waste to the Kapuskasing Economic Development Committee (KEDC).
- In July 1989, the KEDC recommended to the Kapuskasing Town Council that the Town adopt a proactive position on the proposal and begin a program of public information and discussion with Metro Toronto and the Ministry.
- A public information session was held in September 1989 in Kapuskasing. Public of the Kapuskasing area have expressed concerns regarding the proposal.

CURRENT SITUATION:

- The proposal was not nominated as a contingency site by any of the regional municipalities of the GTA nor has it been endorsed by SWISC.
- Kapuskasing has approached Metro Toronto regarding the proposal separate from SWISC.
- Long term proposals are subject to the requirements of the Environmental Assessment Act. Contingency sites, required for the period of January 1, 1992 to December 31, 1996 and endorsed by SWISC, will be processed through the Environmental Protection Act (EPA). Hearings for contingency sites will be held under the EPA.

FUTURE ACTION:

- The Ministry's GTA Waste Management Task Force will be monitoring the progress of the waste disposal proposal.

Northeastern Region

KAPUSKASING - WASTE DISPOSAL SITE EMERGENCY CERTIFICATE OF APPROVAL

BACKGROUND:

- An emergency Certificate of Approval was issued to the Town of Kapuskasing on November 8, 1989, for the operation of a 2.0 hectare landfilling site adjacent to the Town's previous site. The Certificate was issued with conditions which allowed the Town sufficient time to carry out a work program to support an interim expansion application. The Certificate expired on December 31, 1990.
- The Town applied for funding assistance under the Ministry's 1990-91 Financial Assistance Program for hydrogeological work and site preparation work. Funds in the amount of \$27,750 were approved in June 1990.
- In August 1990, the Ministry of the Environment (MOE) requested advisement by the Town of actions to be taken to comply with the Certificate. In reply, the Town requested the dates for compliance be changed. In October 1990, MOE advised the Town that operation of site beyond December 31, 1990, would be in violation of Section 27 of the Environmental Protection Act and the Town was requested to advise of its intended actions to ensure compliance.
- By correspondence dated November 7, 1990, the Town requested the emergency Certificate of Approval be extended beyond December 31, 1990.
- Ministry of the Environment's Investigations and Enforcement Branch have been advised of non-compliance with the Certificate.

CURRENT SITUATION:

- The landfill site services the Town of Kapuskasing only, population of 10,500. No other disposal options are available to the municipality. The municipality is participating in a Waste Management Master Plan study with the adjacent municipality of Moonbeam; however, the municipality has not established a 3Rs program.
- The MOE staff have discussed options to deal with the situation. The recommendation has been made that prosecution should proceed for non-compliance with conditions on Certificate.
- On January 3, 1991, correspondence forwarded from the Ministry to the Town requested a meeting to discuss the actions to be taken by the Town to rectify the non-compliance situation. As of January 24, 1991, no response had been received from the Town.
- The Investigations and Enforcement Branch have interviewed Town staff and council members, and are preparing a Crown Brief recommending charges be laid.

- Site inspections on January 3, 8, 17 and 23, 1991 by MOE staff confirmed that landfilling was occurring at the landfill site.

FUTURE ACTION:

- Ministry staff will continue with weekly site inspections.
- Ministry staff will continue to monitor progress of Town in complying with conditions and development of actions to ensure continued waste disposal activities in accordance with Section 27 of the Environmental Protection Act.

Northeastern Region

KIDD CREEK MINES LTD. - METALLURGICAL COMPLEX
CITY OF TIMMINS

BACKGROUND:

- In 1990, Kidd Creek Mines made formal application to amend a 1987 copper smelter Certificate of Approval from an emission rate of 55 grams per second to 85 grams per second.
- Also, the Kidd Creek Jarocite Pond was revealed as the source of off-property migration of contaminants.
- An application for approval was made for the construction of an indium plant in the spring of 1990. The Certificate of Approval was issued in December 1990.
- A process effluent telemetry system was tested in 1990 for an improved final effluent.
- An application for approval was received in December 1990 to amend the Kidd Creek tailings management system.

CURRENT SITUATION:

- The Ministry of the Environment and Kidd Creek officials have worked out an operating strategy to ensure that total site emissions will not be increased. The air approval will be issued for the entire metallurgical complex with issuance expected by February 1991.
- The approval will include the requirements for a meteorological study, a study to determine an annual emissions cap, and a condition for monitoring of all individual sulphur dioxide (SO_2) source monitoring.
- A fourth air monitoring station has recently been connected to the company's air telemetry system. It is an off-property station, approximately 2.0 kilometres from the two year old 105 metre copper smelter stack. In two audits, the station has shown to be reliable.
- The Jarocite Pond contamination has been mitigated by altering natural drainage and pumping the contaminated water through the Kidd Creek water treatment and tailings management system. Monitoring will continue.
- The effluent telemetry system is now being utilized for tailings management control and compliance with Metal Mining Effluent Guidelines.
- The tailings management review is ongoing to determine future dilution criteria at final discharge along with improved pH adjustment (i.e., carbon dioxide system).

FUTURE ACTION:

- By 1992, all individual SO₂ emission sources will be monitored for tail gas concentrations.
- By 1992, an annual emissions cap will be established to ensure no increase in total site emissions.
- The contaminants problem from the Jarocite Pond will be monitored along with formal requests for site closure and rehabilitation.
- Approval will be granted for the tailings management system conditional to the establishment of criteria for improvements to the Porcupine River.

Northeastern Region

LAKE NIPISSING - NORTH BAY BEACHES

BACKGROUND:

- A Ministry of the Environment (MOE) report prepared in January 1985, confirmed extensive bacteriological contamination of North Bay beaches. Amelia Beach has been posted by the North Bay and District Health Unit since 1962.
- In 1989, Phase I of a Pollution Control Planning Study was carried out to determine the extent of contamination. The resulting report concluded that during July and August, four public beaches exceeded Provincial Water Quality Guidelines for body contact recreation.
- The Phase I report identified storm drainage as the major source of contamination. The report recommended that the study proceed to Phase II to better define the sources of contamination and establish an abatement strategy.
- The MOE approved a grant of \$95,000 for Phase II of the Lake Nipissing Pollution Control Planning Study. Phase II of the study was conducted in 1990.
- Sampling by the North Bay and District Health Unit in 1990 resulted in posting many of the beaches as not safe for swimming.

CURRENT SITUATION:

- By letter to the Minister dated June 18, 1990, Stan Lawlor, Mayor of North Bay, requested assistance in investigating innovative solutions through the Innovative Technology Working Group (CETEC-north) which is jointly administered by MOE and the Ministry of Northern Development and Mines. A consultant has prepared a proposal to the Committee detailing potential storm water management approaches. The proposal is under active consideration.

FUTURE ACTION:

- The consultant's draft report on Phase II of the Pollution Control Plan is expected to be presented to North Bay Council in February 1991.

Northeastern Region

MACMILLAN BLOEDEL LIMITED - STURGEON FALLS DIVISION

BACKGROUND:

- MacMillan Bloedel Limited operates a pulp and paper mill in the Town of Sturgeon Falls for the production of corrugating medium and hardboard siding.
- On June 7, 1990, the Company started up a new \$11 million anaerobic treatment plant for the removal of biochemical oxygen demanding substances (BOD) contained in mill wastewater discharges to the Sturgeon River. The plant was installed in accordance with the requirements of a Ministry Control Order.
- By letter dated June 15, 1990, the Company advised the Ministry that "occasional" barnyard type odours would likely be experienced until the treatment plant is fine tuned. The odours would be attributable to nuisance hydrogen sulphide levels.
- On August 7, 1990, the first of several complaints was received concerning a persistent foul odour in the Town coming from the mill.
- In early December 1990, the Company located the cause of the problem. It was discovered that a treatment plant compressor was blocked and badly corroded. The compressor has since been replaced and, according to the Company, no noticeable odours have been detectable in the neighbourhood since.

CURRENT SITUATION:

- The Company is maintaining a daily community patrol to monitor off-property hydrogen sulphide levels.
- The Company has utilized the local weekly newspaper on two occasions to advise the public on its progress in solving the problem.

FUTURE ACTION:

- Ministry staff will check odour levels during visits to the area to ensure that this problem has been abated.

Northeastern Region

MALETTE KRAFT PULP AND POWER TOWN OF SMOOTH ROCK FALLS

BACKGROUND:

- Malette Kraft Pulp and Power operate a 300 tonne per day kraft mill in Smooth Rock Falls.
- A Control Order, generic to the kraft pulp mills in Ontario, was issued to the company in November 1989.
- The company is expanding the mill to 500 tonnes per day and will utilize high chlorine dioxide substitution and extended oxygen delignification to meet Control Order limits. The company has submitted a detailed action plan to the Ministry of the Environment detailing the scheduling required to achieve compliance with the Control Order.

CURRENT SITUATION:

- The maximum daily limit for biological oxygen demand (BOD₅), as stipulated in the Control Order, was exceeded once in December 1989 and three times in January 1990. Causes for the exceedances have been identified and corrected. Investigations and Enforcement Branch are investigating.
- Malette are proceeding with the action plan to ensure compliance with the Control Order. Applications for approval have been submitted to the Ministry for a revised sulphur dioxide (SO₂) recovery system and chlorine dioxide generator. The company has also replaced the facility's pulp machine.
- The company carried out an air emission audit and report outlining emission quality and recommended control measures in late 1990. The audit report is presently under review by the Ministry.

FUTURE ACTION:

- Ministry of the Environment staff will monitor the progress of the company in implementing activities in accordance with the accepted action plan.
- The proposed air emission control strategy will be reviewed by the Ministry and staff will monitor progress of the company in implementing control measures.

Northeastern Region

MATACHEWAN CONSOLIDATED MINES FAILED TAILINGS DAM

BACKGROUND:

- On October 17, 1990, a tailings dam failure released an estimated 130,000 cubic metres of tailings to the environment, resulting in a plume in the Montreal River containing lead and turbidity that exceeded drinking water objectives.
- It is believed that higher than normal levels of rainfall, in conjunction with high water levels in the adjacent Otisse Lake as a result of a beaver dam, saturated the tailings pond and caused the failure of the containment wall.
- Matachewan Consolidated Mines (MCM) is a gold property that ceased production in 1954.
- A portion of Davidson Creek is completely filled with tailings. The confluence of the Creek and the Montreal River also contains tailings sediment.
- Water flow from Otisse Lake into the tailings area was stopped, and repairs to the tailings dam were completed by the Ministry of Natural Resources (MNR) on November 24, 1990.
- MCM was issued a Notice on November 9, 1990, indicating a Director's Order under Sections 16-17 of the Environmental Protection Act (EPA) would be issued. A public information session was held concurrently in the communities of Matachewan, Elk Lake and Latchford to present the Order contents to the residents affected by the tailings discharge and to receive comments from the public. The Order was served on December 17, 1990.
- Notices were issued to two other companies, Goldteck Mines Ltd. and Pamour Inc., on December 19, 1990.
- Drinking water supplies affected by the tailings were restored by the Ministry of the Environment (MOE) through communal well installations (at Elk Lake) and individual filtering devices at homes taking water directly from the Montreal River.
- Acute toxicity testing of the most concentrated area of the plume and in the tailings area has indicated no lethality to daphnia and rainbow trout, two test sensitive organisms.
- The tailings plume passed through the Montreal River (168 km) as of December 20, 1990.

CURRENT SITUATION:

- The water quality of the Montreal River is back to normal; however, monitoring of both the river and individual water supplies will continue throughout the winter.
- MCM has appealed the Order and filed a request for a "stay" of the Order with the Environmental Appeal Board.
- The Regional Director is assessing the submissions provided by Goldteck Mines Ltd. and Pamour Inc following issuance of the Notice of intent to issue an Order.
- MCM has not complied with any requirements under the Order.

FUTURE ACTION:

- MOE is to determine when work required under the Order will be initiated since spring freshet conditions (i.e., high water flow) could mobilize tailings again and create further water quality problems for downstream users on the Montreal River.
- MOE staff are preparing evidence in support of the position that remedial work is needed immediately and in defense of "Stay" application by MCM.
- A decision is to be made regarding issuance of an Order to Goldteck Mines Ltd. and Pamour Inc.

Northeastern Region

MCDougall Township Landfill Site

BACKGROUND:

- The McDougall Township landfill site receives wastes from seven municipalities in the Parry Sound area.
- McDougall Township assumed responsibility for the site on October 18, 1989, after receiving a Section 29 Direction Environmental Protection Act to assume ownership and operation of the site which was formerly owned and operated by Municipal Contracting Services Ltd (MCS).
- On March 13, 1990, Senior Ministry staff met with representatives of the Township and other user municipalities. It appeared that an understanding was reached on how to approach the financial and legal considerations concerning the site. A letter was forwarded to the Township on March 14, 1990, outlining the Ministry's position with respect to the Municipality's financial concerns. Another letter from the Legal Services Branch was sent on June 11, 1990, covering the liability concern.
- The McDougall Township site must be closed in September 1991 in accordance with Certificate of Approval requirements.
- The Parry Sound Waste Management Master Plan (WMMP) study completion has been delayed due to changed requirements for the study and will now not be finished until August 1992. It will be sometime in 1993 before a replacement site for the present site will get approved.

CURRENT SITUATION:

- The Section 42 EPA Order to MCS to turn over the site to the Township was appealed, but is in abeyance at the request of MCS.
- Waste Management Improvement Program (WMIP) funding of \$53,518.00 was provided to McDougall Township in 1989-90 and \$127,500 WMIP funding has been allocated for 1990-91. The Township has applied for \$86,500 in WMIP funding in 1991-92.
- A letter dated January 4, 1991, from the Township's solicitors was received by the Approvals Section requesting that the Ministry address the liability issue.
- A letter dated January 9, 1991, was sent to the Township of McDougall suggesting a meeting to discuss the continued operation of the site, ownership and leachate control.
- McDougall Township is not satisfied with MOE response to their financial guarantees and liability concerns.

- McDougall Township feels that they may get a better "deal" by meeting with the new government.

FUTURE ACTION:

- Respond to the January 4, 1991, letter from the Township's solicitor.
- Meet with the Township as proposed in the January 9, 1991, letter.
- Ensure all past Township correspondence has been addressed.

Northeastern Region

MED TRACK BIOMEDICAL WASTE INCINERATOR PROPOSAL

BACKGROUND:

- An application for a Certificate of Approval (Air) was submitted in May 1989 for a 9.5 tons per day incinerator at the Parry Sound Industrial Park in Carling Township. As design capacity is less than 10 tons per day, the approval falls under the Environmental Protection Act requirements rather than the Environmental Assessment Act.
- After extensive Ministry review, a revised application was submitted on October 31, 1990.
- Med Track held a public meeting to outline their proposal during the summer of 1990.
- Local ratepayers/cottagers groups have expressed concern about air pollution and other adverse environmental effects.

CURRENT SITUATION:

- The revised application is under Ministry review.

FUTURE ACTION:

- If revised application is found to be complete and suitable, a request will be made to the Environmental Assessment Board to arrange for a public hearing under the Environmental Protection Act.

Northeastern Region

**N-R POWER AND ENERGY CORPORATION
PROPOSED HYDRO-ELECTRIC DAM AT LONG SAULT RAPIDS, ABITIBI RIVER**

BACKGROUND:

- N-R Power and Energy Corporation has proposed a "run-of-the-river" hydro-electric power dam on the Abitibi River at Long Sault Rapids. The head pond of the dam will extend 50 km upstream to Buckdeer Rapids, effectively removing the re-aeration capacity of the river.
- Abitibi-Price Inc. operates a pulp and paper mill that discharges to the Abitibi River upstream of Buckdeer Rapids at Iroquois Falls. The Company operates under a Control Order that requires it to maintain a dissolved oxygen level of 47% of saturation at all points downstream of the mill. It also limits biological oxygen demand (BOD) and suspended solids levels in the effluent.
- The Company has prepared environmental study reports and has held public meetings which Ministry of the Environment (MOE) staff have attended.
- The project may be subject to a federal Environmental Assessment (EA) as well as to other relevant federal legislation.
- Members of the NDP (when in opposition), Counsel for Cree Indian Bands and signatories of the James Bay Treaty No. 9 requested that all small hydraulic development proposals be designated under the Environmental Protection Act and that a cumulative assessment for the whole of the Moose River Basin be conducted prior to an individual EA approval.
- Legal Services Branch (LSB) advised of the following options to deal with the issue as follows:
 1. Designate project under the Environmental Assessment Act (EAA).
 2. Require Permit To Take Water which will likely be appealed.
 3. Amend the Abitibi-Price Control Order.
- LSB preferred designation of the project under the Environmental Assessment Act to ensure that all competing interests are considered.

LSB recommended that the Ministry distance itself from negotiations between Abitibi-Price and N-R Power over the right of use of the river.
- The proposal is a competing use of the river which will cause water quality impacts.

An evaluation of the proposed project by Ministry staff concludes that the assimilative capacity of the Abitibi River will be significantly reduced. The construction of the dam will reduce the dissolved oxygen level to below the required 47%.

Meetings have been held between the Company, the Ministry of Natural Resources (MNR) and MOE staff. The Company recognizes the following issues:

1. third party requests for cumulative Moose River Basin studies prior to approval;
2. Native concerns for flooded lands (New Post Indian Reserve);
3. water quality impacts (DO reduction); and
4. EA designation requests.

CURRENT SITUATION:

- The Company has taken the following action:
 1. submitted a justification document for relief of cumulative impact studies;
 2. suggested a means of compensating the Native bands; and
 3. committed itself to request designation of the project under EAA if cumulative impact studies are not required.
- MNR advised that they will not proceed with further approvals until the water quality and basin-wide assessment issues have been resolved by MOE. They have informed the Company and MOE of their position that basin-wide cumulative impact studies are unnecessary.
- MOE has requested additional information from MNR to substantiate this approach.
- The Town of Cochrane has voiced support for the project.

FUTURE ACTION:

- The Ministry will monitor Native negotiations and will continue to meet with the companies when required.
- A decision must be made on subjecting the project to a basin-wide effects study.
- The issue of sharing the assimilative capacity of the river must be negotiated by the respective users, Abitibi Price and N-R Power and Energy Corp.

Northeastern Region

NOELVILLE GASOLINE CONTAMINATION (TOWNSHIP OF COSBY, MASON AND MARTLAND)

BACKGROUND:

- Gasoline contamination of groundwater in the Town of Noelville has been an ongoing problem for more than 20 years.
- The source of contamination is believed to have been from leaking underground storage tanks discovered at several locations throughout the Town.
- This issue represents a significant environmental problem involving health implications since residents obtain their drinking water from private groundwater sources. The Medical Officer of Health was consulted and is addressing public health related inquiries.
- The potential health implications of gasoline contamination of drinking water have become more apparent recently after the lowering of the World Health Organization guideline for benzene.
- Several affected wells were identified during the past few years. Well replacements were undertaken by the Ministry through the Security Fund between 1987 and 1990.

CURRENT SITUATION:

- A total of 20 wells have been replaced at a cost of \$245,000.
- Ministry staff are investigating other recent complaints of gasoline contaminated wells in Noelville.

FUTURE ACTION:

- Respond to any complaints as they are received and sample wells where contamination is expected.
- Continue well replacement program as required.

Northeastern Region

PARRY SOUND AREA WASTE MANAGEMENT MASTER PLAN (WMMP)

BACKGROUND:

- A Waste Management Master Plan (WMMP) study for nine organized and unorganized municipalities in the Parry Sound area received funding approval in June 1988. The municipalities included were the Town of Parry Sound, Village of Rosseau, Townships of McDougall, Foley, Humphrey, Carling, Christie, McKellar, and Archipelago. Archipelago subsequently withdrew from the study.
- A waste disposal site identified by the study is necessary to replace McDougall Township landfill site which is scheduled to close on September 28, 1991.

CURRENT SITUATION:

- The consultant study was originally scheduled to be completed in the fall of 1990. Due to changed requirements, response time delays and delays in getting the Board of Management agreement signed by all municipalities, the completion of the study is now scheduled for August 1992.
- Identification of candidate waste disposal site locations is expected in February 1991.
- At the September 18, 1990, meeting of the Steering Committee, the Board of Management was formed and the executive was elected. Ministry staff urged the Board of Management to take action by asking McDougall Township to seek an extension of the closure date for the McDougall site or to consider other disposal options for the period beyond September 1991 until a new site is opened.
- Regional staff have requested a meeting with the Township of McDougall to discuss operation of the site. At that time the Township's position on continuing to operate the site after September and until a new site is opened will be ascertained.

FUTURE ACTION:

- Approval of a new waste disposal site to service the area will fall under the Environmental Assessment Act. As a result, the Ministry may be asked to consider extending the September 1991 closure date for the McDougall site.
- Meet with the Township of McDougall in February to determine if it is considering applying for an extension to the Certificate of Approval beyond September 1991.

Northeastern Region

SHERIDAN COPPERCORP MINE SITE TAILINGS DAM REHABILITATION

BACKGROUND:

- In 1985, a tailings dam at the Coppercorp Mine overtopped as a result of a decant failure. This resulted in a washout of part of Highway 17 and the discharge of tailings to Lake Superior.
- An Order was served on the owner, Mr. J.P. Sheridan. To date, there has been no compliance with that Order, and the matter remains before the courts.
- MOE staff are concerned about Ministry liability should the dam fail again.
- In December 1988, Security Account funds were allocated to undertake rehabilitation work at the tailings dam.
- Engineering assessment and design is now complete, and costs to date total \$20,000. An Ontario Water Resources Act (OWRA) Certificate of Approval has been issued and environment assessment cleared.

CURRENT SITUATION:

- Abatement staff have redrafted an Order under Section 17 OWRA requiring Mr. Sheridan to stabilize the dam and to address problems associated with a previously unencountered decant structure at the site. Legal Services staff are currently reviewing the Order.
- Mr. Sheridan is not expected to comply with this Order. Costs are anticipated to exceed \$200,000.

FUTURE ACTION:

- Abatement staff will re-tender for all of the rehabilitation work, should the owner not comply with the Order.
- The Ministry of the Environment will attempt to recover expenditures from Mr. Sheridan, pending the outcome of ongoing litigation.

Northeastern Region

SUDBURY WASTE DISPOSAL SITES AND MINISTER'S ORDERS

BACKGROUND:

- Minister's Orders were issued to the City of Sudbury, Town of Nickel Centre, Town of Valley East, Town of Walden, and Town of Onaping Falls, due to operational problems at these sites.
- The Minister's Orders require submission of monitoring reports and hydrogeological studies at the Sudbury, Nickel Centre and Onaping Falls sites, while Contingency Plans are required for the Valley East and Walden sites.
- Valley East Contingency Plan was first submitted in December 1988 and resubmitted August 1990. Ministry of the Environment (MOE) comments identified areas of weakness in the Supplemental Contingency Plan which we wished addressed.
- Walden Landfill Contingency Plan was submitted in April 1987. MOE comments identified areas of weakness in this report and required the resubmission of a more elaborate and detailed report.
- Sudbury Landfill Site Hydrogeological Study was resubmitted November 1990. A public meeting regarding expansion of the Sudbury Site was held December 13, 1990.

CURRENT SITUATION:

- A letter was sent to the Regional Municipality of Sudbury (RMOS) on December 17, 1990 requesting resubmission of the Valley East Landfill Site Contingency Plan by February 17, 1991.
- A letter has been sent to RMOS requesting the resubmission of the Walden Landfill Site Contingency Plan by March 1991.
- On Friday, December 14, 1990, MOE met with RMOS and its consultants to discuss the outcome of the public meeting held the previous day for the Sudbury site.
- The Supplemental Hydrogeological Report for Nickel Centre Landfill Site was submitted in November 1990. The information will be used to update the original expansion application.
- A meeting was held with MOE, RMOS and its consultants on December 6, 1990 to discuss the "Grandfather Exemption" for Nickel Centre Landfill Site.
- A Hydrogeological Study for Onaping Landfill Site Report was submitted in June 1990.

FUTURE ACTION:

- A meeting has been scheduled for January 25, 1991 with MOE, RMOS and its consultants to further discuss their application for an Interim Exemption under the Environmental Assessment Act for the Sudbury Landfill Site.
- Comments on the Hydrogeological Study for Onaping Landfill Site will be sent out shortly. A change in the dates on the Minister's Report will be required to accommodate the implementation of the recommendations in the Hydrogeological Study.
- Review of the revised Operating and Development Plan for the Nickel Centre Landfill Site when submitted along with the final application. RMOS will be subject to Environmental Protection Act (EPA) Part V Hearing.
- Review and finalize contingency plans for Walden and Valley East sites.

Northeastern Region

TEMAGAMI/TEMISKAMING COORDINATING COMMITTEE

BACKGROUND:

- The Inter-Ministerial Temagami/Temiskaming Coordinating Committee (TTCC) was established under the direction of Ministry of Northern Development and Mines (MNDM) in the fall of 1988 to take responsibility for coordinating and facilitating the provincial response to mine and sawmill closures and layoffs in the area and to work with communities and others affected.
- The William Milne and Sons sawmill in Temagami has been purchased by the Ontario government and is now closed.
- On March 31, 1990, Dofasco closed the Adams Mine (Kirkland Lake) and Sherman Mine (Temagami) resulting in the loss of 700 direct jobs.
- The Teme-Augama Anishnawbaj Indian Band has appealed to the Supreme Court of Canada a recent decision regarding the Temagami land caution. The caution will remain in place further compounding negative socio-economic impacts on the area. The peripheral areas surrounding the land claim were opened for exploration on April 3, 1990.

CURRENT SITUATION:

- Funding has been approved through MNDM for the construction of a municipal airport on the tailings area which served Sherman mine. Design of the facility is proceeding; however, construction cannot commence until studies being conducted by Sherman Mine demonstrate that there are no materials illegally disposed of in the tailings area which could present environmental and/or safety hazards. The matter of responsibility for the tailings area after construction of the airport has yet to be decided.
- The communities in the affected area compiled a prioritized "wish list" of infrastructure projects which they would like to have funded. The cost for water, sewage, and waste disposal projects totalled approximately \$30 million. In response, the Chairman of TTCC was provided with a listing of all projects approved for funding by the Ministry of the Environment in the area.
- The Adams Mine has been elevated by the Greater Toronto Area to a short list of potential disposal areas in the North for its waste.
- MNDM is coordinating the decommissioning of the Adams and Sherman Mines. The Ministry of the Environment (MOE) serves on the decommissioning committee to ensure that there will be no outstanding environmental issues.

FUTURE ACTION:

- There are several industrial developments proposed for the area including Pyrok (a gypsum wallboard fabricating company). The Ministry will be involved in reviewing the plans and ensuring that the environmental concerns are addressed and necessary approvals are obtained.
- Requests for funding by the Ministry for environmental projects in affected communities are being considered by the normal Project Priority Evaluation Committee (PPEC) process. A bonus score is possible for projects in the area if the need can be directly attributed to representing an economic or development constraint. If successful in attaining the bonus, this would result in the project being accepted under the Ministry's process.
- The TTCC chairman has advised that individual Ministry representatives will be responsible for keeping their senior management informed of the Committee's activities.

Northeastern Region

THESSALON WASTE DISPOSAL SITE

BACKGROUND:

- The Town of Thessalon presently operates a certified waste disposal site (landfill) within the municipality. The site, servicing a population of 1,450, has been in operation for over sixty years.
- Written recommendations that the Town find an alternate site were made by Waste Management staff as early as 1970. In September 1982, a historical brief relating to the Town of Thessalon waste disposal site was prepared by MOE staff. The brief documented operational and other problems at the site and recommended that the Town find an alternate site.
- On October 21, 1982, the Town was charged with violations of Regulation 309. Two Part I summonses were issued; the Town pleaded guilty on both counts.
- On January 5, 1983, Section 42 of the Environmental Protection Act (EPA) Director's Order was served on the Town. The Order required that the site deficiencies noted in the 1982 report be corrected, and maintained in conformity with Part V of the EPA.
- The site was closely monitored by Ministry staff, following service of the Order. Some operational difficulties continued, which the Town attempted to address. However, compliance with the Order was not achieved until 1987.
- The Town and Ministry staff worked together for years to try to find an alternate site. Town staff sought a site on vacant land outside the Town; however, no other adjacent municipality would permit the establishment of a landfill site within their boundaries, to serve the Town.
- On March 14, 1989, staff served a Section 29, EPA Minister's Report on the Town. The Report required the Town to establish a new waste disposal site by January 31, 1990.
- In April 1989, the Town entered into a Waste Management Master Plan with two other area municipalities. The group is known as the Tri-Neighbours Waste Management Committee and includes the towns of Thessalon and Bruce Mines and the Township of Plummer Additional.
- In October 1989, the Town spent approximately \$30,000 of municipal funds to improve their existing site. These improvements were not at the request of Ministry staff.
- On January 3, 1990, the Town of Thessalon wrote to the Minister, requesting an extension of the deadline date contained in the Section 29 Report. District staff have recommended that the date for compliance be extended.

- On January 31, 1990, the Town did not have in place a new waste disposal site. An Occurrence Report has been prepared and forwarded to the Investigations and Enforcement Branch.
- The Tri-Neighbours Waste Management Committee, of which the Town of Thessalon is a member, put the preparation of their Master Plan on hold, while seeking additional study funds of the Minister. A letter with that request was sent to the Minister in August, 1990.

CURRENT SITUATION:

- The Town of Thessalon has taken an option to purchase adjacent properties, to allow for the expansion of the existing site on an emergency basis. The existing site has less than one year of capacity left.
- The application for an amended Certificate of Approval to allow for expansion of the existing site, has been processed by District staff and sent to the Planning and Approvals Branch, along with supporting documentation. District staff have recommended expansion of the existing site on an emergency basis, for a period of five years.
- Ministry staff have also prepared a new Section 29 E.P.A. Minister's Report, requiring the Town of Thessalon to have in place a new waste disposal site by January 2, 1995. The Report and Enforcement Justification document have been sent to the Regional Director for his approval.
- The Tri-Neighbours Waste Management Committee has not yet received a reply to their August, 1990 letter to the Minister, requesting additional study funds.

FUTURE ACTION:

- Ministry staff will serve the new Section 29 Minister's Report on Town staff, upon approval and signature by the Minister.
- Ministry staff in the Northeastern Region will review the Town's application for an amended Certificate of Approval to allow for the expansion of their existing waste disposal site.
- If the interim expansion of the Town site is approved, the existing site will be closed out at the earliest opportunity.
- There is a strong likelihood that the Tri-Neighbours Waste Management Master Plan will terminate, if a favourable response regarding increased study funds is not received from the Minister.

Northeastern Region

3RS INITIATIVES ON HIGHWAY 11 CORRIDOR COCHRANE TO HEARST

BACKGROUND:

- The municipalities of Cochrane and Glackmeyer Township, Kapuskasing and Moonbeam, and Hearst are currently conducting individual Waste Management Master Plans. The planning exercise addresses the 3Rs; however, on an individual basis, serious questions as to the feasibility of the initiative are being raised due to transportation distances and low population density.
- On September 27, 1990, Timmins District staff met with the municipalities of Fauquier-Strickland, Opasatika, Val Rita-Harty, Mattice-Val Cote and Moonbeam to discuss waste management issues and the impact of Ministry policy on the smaller municipalities on the Highway 11 corridor. Representatives of the five municipalities expressed an interest in a 3Rs program if feasible. Recommendation forthcoming from the meeting was that a committee should be established with representation from municipalities along Highway 11 to initiate 3Rs in the area.

CURRENT SITUATION:

- The municipality of Fauquier-Strickland have taken on lead responsibilities and in November 1990 issued a resolution of council requesting participation of the municipalities along Highway 11 from Cochrane to Hearst in a 3Rs committee for the area. Ministry participation on the committee will also be requested.

FUTURE ACTION:

- Timmins District staff will be actively participating on the committee once established. Participation by the Waste Management Branch will be requested on an as required basis.
- The municipality of Hearst is actively interested in initiating a 3Rs program; however, lack of a formal plan for 3Rs processing centres in Cochrane District is limiting the municipality's initiative.
- The need for a feasibility and planning study for 3Rs in the District of Cochrane has been identified by municipalities along the Highway 11 corridor.

Northeastern Region

TROUT LAKE - NORTH BAY

BACKGROUND:

- Trout Lake is encircled by the City of North Bay and the Township of East Ferris. Lakeshore development includes some 900 permanent and seasonal dwellings utilizing private sewage systems. The lake is used directly as a water supply by individual residents and is also the source of water supply for the City of North Bay.
- Trout Lake water quality receives considerable local media attention. Residents on the lake, as represented by the Trout Lake Conservation Association, are concerned over the present and future impact of phosphorus loadings resulting from lake development.
- A Pollution Control Planning Study (PCPS) was carried out in 1989. The consultant's report was presented to North Bay City Council in April 1990. The report listed a number of recommendations for phosphorus loading reductions.

CURRENT SITUATION:

- The City of North Bay and the Township of East Ferris are commencing to implement the recommendations of the PCPS. Both municipalities are preparing by-laws to increase sewage system setbacks to 100 feet of Trout Lake and also to require annual septic tank pumpage.
- The Ministry's Innovative Technologies Committee is considering a proposal from a consultant to investigate methods of chemical precipitation of phosphorus in septic tanks to further reduce loadings to the lake.

FUTURE ACTION:

- The City of North Bay will consider implementing recommendations to replace private systems in selected strip development areas with municipal servicing.
- Phosphorus levels in the lake will be monitored on an ongoing basis under the Ministry's spring phosphorus sampling program.

Northeastern Region

WASTE MANAGEMENT MASTER PLAN TOWN OF COCHRANE

BACKGROUND:

- The Town initiated a Waste Management Master Plan study in 1983. The site selection process of the study identified a limited number of candidate areas. The preferred candidate area, as identified within the original study boundaries, is located within glacio-lacustrine clays.
- The Town has serious reservations regarding development of a site within a glacio-lacustrine clay due to the inherent operational difficulties associated with construction and vehicular traffic in such materials.
- A cost comparison study for operating a site within the proposed candidate area and an existing Ministry of Natural Resources' site beyond the restricted area of search has been completed. The study indicated comparative costs but no allowance was able to be made for operational difficulties likely to be encountered in glacio-lacustrine clays.

CURRENT SITUATION:

- In August 1990, the study's Steering Committee decided to expand the area of search for more suitable candidate areas. The study's Terms of Reference have been revised to incorporate the Ministry's generic Terms of Reference for Waste Management Master Plans.
- The study's consultant has prepared a revised work plan and cost estimate. Upon receipt of the cost estimate for the expanded study, the Town has applied to the Ministry for funding under the Ministry's Waste Management Master Plan program.

FUTURE ACTION:

- The Ministry will be participating on the study's Steering Committee.

Northeastern Region

NORTHWESTERN REGION

BLUE BOX RECYCLING IN NORTHWESTERN ONTARIO

BACKGROUND:

- The Blue Box Recycling Program has been vigorously promoted in the Northwestern Region, however, the City of Thunder Bay has failed to institute one.
- Dryden and twenty-five municipalities in the surrounding area (300 km range) have joined to form the Northwestern Ontario Recycling Association (NORA).
- NORA covers a large geographic area of small municipalities and rural depots. Backyard composting has been included in the program.
- The City of Thunder Bay applied for assistance in funding of a Blue Bag Newspaper collection program. Two pulp and paper mills in Thunder Bay have announced plans for newsprint de-inking plants.

CURRENT SITUATION:

- Waste Management Branch responded to Thunder Bay stating that funding would be made available retroactively if the City starts a multi-material program, however, there was no program to fund only newspaper collection.
- Budget estimates for NORA anticipate operating costs of > \$600/ton of recyclables largely due to the transportation costs for collection and delivery to markets.
- The Town of Atikokan has made a request to join NORA. Atikokan (although much closer to Thunder Bay) would enter the Rainy River node of NORA.

FUTURE ACTION:

- The issue of enhanced funding to subsidize the high transportation costs has been raised and will be considered by the Northern Recycling Task Group.
- The Ministry will continue to work to identify/develop/assist local markets. More needs to be done to reduce the high cost of operating small northern programs if this provincial program is to succeed in the Northwestern Region.
- Ministry of Government Services is in the process of launching recycling programs in government buildings. The programs are initially limited to fine paper and newsprint in those locations where a Blue Box Program is not in place.

Northwestern Region

BOISE CASCADE CANADA LTD., FORT FRANCES - DIOXINS IN FROG CREEK

BACKGROUND:

- Ministry of the Environment (MOE) in conjunction with the Rainy River Water Pollution Board agencies (Environment Canada, U.S. Environmental Protection Agency (EPA), Minnesota Pollution Control Agency, MOE) and Boise Cascade conducted detailed investigations respecting water quality of the Rainy River system in 1986. An important component of the study (which MOE undertook) dealt with the accumulation of chlorinated organics in biota in the Rainy River. Dioxin traces were found in clams placed in Rainy Lake near the mouth of Frog Creek.
- The Frog Creek drainage basin contains two closed and one active woodwaste disposal sites, which contain secondary lagoon sludge from the local kraft mill. A further clam caging study, conducted in August of 1989 implicated at least one of the Boise Cascade operated woodwaste sites as a source of dioxins to Frog Creek. These findings were incorporated in past Ontario submissions to the IJC Rainy River Board and incorporated into the Board's annual reports.
- MOE analysis of material excavated from the bottom of the Fort Frances mill's aerated stabilization basin revealed 210 and 350 ppt 2,3,7,8-TCDD.
- Dioxin has never been detected in any of the Municipal drinking water or river water samples taken to date.
- A generic Control Order was placed on Boise Cascade in October 1989 limiting adsorbable organic halides (AOX) formation effective December 31, 1991.

CURRENT SITUATION:

- The Ministry staff reviewed an action plan proposal by Boise Cascade Canada in June, 1990, to further evaluate potential migration paths of the dioxins from the landfills, with additional bioaccumulative sampling programmes, as well as determining remedial options. The study has been contracted out and is presently underway. Field work was completed in late August. The Ministry has undertaken fish sampling programmes in 1990 in the Frog Creek and Rainy River areas. Results of MOE analysis will be available in early 1991.
- The Ministry has issued a Certificate of Approval for high chlorine substitution utilizing chlorine dioxide (ClO_2) in the kraft mill bleachery to reduce AOX formation.
- One Ministry study report "In-situ Clam Exposure in the Rainy River to Determine the Source of Organochlorine Contaminants" was released on June 1, 1990. A second Ministry report "Identification of Sources of Chlorinated Dioxins and Furans in Frog Creek Using Introduced Mussels" was released in September, 1990. Staff have met with Municipal officials of Fort Frances on various occasions to discuss the implications of the dioxin findings.

- Ministry staff were consulted by Health and Welfare Canada on addressing the concerns of the local Indian band. The band did not follow through on the offer of a meeting with MOE.
- Boise Cascade Canada completed work in August 1990 to upgrade the clay cap and vegetation cover at both closed landfill sites (Ski Hill and Miscampbell) to prevent any further infiltration and resultant migration.
- Boise Cascade, in conjunction with the Inter-Agency Study group released its final report "The Rainy River Water Quality Study" on October 15 and 16, 1990 in International Falls and Fort Frances. The report concluded that conventional pollution parameters were being successfully abated, however, other pollutants (organochlorides) require additional abatement measures.

FUTURE ACTION:

- The Boise draft bioaccumulative report will be available in February, 1991. Ministry staff will review and recommend appropriate measures dealing with remedial options. Auditing of Boise results by comparison with Ministry independent sampling programme will be included in the review.

Northwestern Region

DOMTAR PACKAGING LIMITED, RED ROCK

BACKGROUND:

- Following the receipt and review of the Expert Committee Report on Kraft Mills in Ontario, the Ministry decided to issue a Generic Control Order to all kraft mills in the province.
- Meetings were held with kraft industry corporate executives and senior Ministry officials on several occasions to discuss the general terms of reference for the Generic Control order.
- Meetings were held with District Office staff and mill operating staff to discuss mill specific control limits for each of the eight kraft mills in the province (Kimberly-Clark had already been issued an amending Control Order).
- The mill specific Control Orders were served on the eight mills in October-December of 1989.
- Domtar Red Rock officials formally appealed the adsorbable organic halides (AOX) limit section only, of the Generic Control Order within the appeal period.
- This is the only kraft mill to appeal any section of the Generic Control Orders. This mill has site specific problems in complying with the AOX requirement.
- The reasons for the appeal are related to the changing economic climate for linerboard due to removal of Canadian protective tariffs under the "Free Trade Agreement".
- Major process and product line changes may be required at this mill for it to remain economically viable.
- Until these decisions are finalized, the cost of reduction of AOX for the small bleachery production of 50 tonnes per day would be exorbitantly high and likely not needed when the process modifications occur.

CURRENT STATUS:

- Through discussion with the company and its legal advisers it appears the company will advise the Appeal Board it will not be proceeding with the appeal.
- The company has stated it would agree to meet the Municipal and Industrial Strategy for Abatement (MISA) AOX requirement by the MISA compliance date (expected to be December 31, 1993).

- The company has installed new diffusion washers in an attempt to reduce the AOX in its discharge; however, it has encountered commissioning problems, and the supplier is working to correct the problem.

FUTURE ACTION:

- The Thunder Bay District Office staff will continue to monitor the company for compliance with the Generic Control Order.

Northwestern Region

**JAMES RIVER - MARATHON, LIMITED
TOWN OF MARATHON**

BACKGROUND:

- James River-Marathon, Limited is a 535 tonnes/day bleached kraft mill which is owned 80% by James River Corporation of Richmond, Virginia and 20% by Buchanan Forest Products Limited of Thunder Bay. The mill is located in the town of Marathon, in the District of Thunder Bay, on the shore of Lake Superior, approximately 300 kilometres east of the City of Thunder Bay. The company presently employs approximately 500 people.
- On October 25, 1989, a Control Order was issued, requiring a reduction in the quantity of biochemical oxygen demand, suspended solids, and adsorbable organic halides (AOX) being discharged to Lake Superior.

CURRENT SITUATIONS:

- The company is presently pursuing an expansion plan, which will see an increase in production from 535 to 1,000 tonnes/day. The company is experiencing some difficulty securing the necessary finances.
- By May of this year, the mill will have completed three major capital projects which will reduce the environmental impact on Lake Superior. They include new pressure washers, bleach plant modifications, and chlorine dioxide generator.
- Although the above in-plant process modifications will result in a reduction in the discharge of biochemical oxygen demanding substances and adsorbable organic halides, it is anticipated that they will not meet the upcoming Control Order Limits. The company estimates that their ability to meet biochemical oxygen demand will be marginal (11.8 t/d) and that AOX will be reduced from 4.6 to 3.2-3.5 kilograms/tonne.

FUTURE ACTION:

- The company underestimated the length of time required to establish the necessary pollution control measures to reach limits set in their existing Control Order.
- The company is committed to meeting the Control Order Limits, but are behind schedule and therefore, will likely be in non-compliance with their Control Order on December 31, 1991.

Northwestern Region

KAM RIVER HYDROELECTRIC GENERATING FACILITY, THUNDER BAY

BACKGROUND:

- In 1987, Mr. Robert Whiteside applied to Ministry of Natural Resources (MNR) for the disposition of Crown Land in order to construct a 3 Megawatt Hydro station on the Kaministiquia River. The project would flood the Pothole Gorge, a popular kayaking and recreational area.
- The Thunder Bay Kayak and Canoe Club petitioned the Minister to designate the project which would normally not be subject to the Environmental Assessment Act (EAA). The Ministry of Tourism and Recreation felt that there was world class potential for the site as a kayaking facility. Two area reeves whose Townships would be affected were supportive of the project because of the taxation revenue.
- The project was declared a major undertaking by MNR and the Minister of Environment requested the Environmental Assessment Advisory Committee to conduct an open review. In April, 1988, the committee recommended that the project be subjected to a limited environmental assessment (EA) which would scope the issues to include only the immediate Kam River basin and Hydroelectric sites.
- Cabinet approved the scoped EA regulation and exemption order in May, 1988. A formal document was submitted for government review in March, 1989.
- The Government Review was published in May, 1989, and concluded that the EA report was incomplete and did not meet the requirements of the EAA.

Within the review, the Ministries of Energy and Environment noted deficiencies in site selection criteria and rationale. The Ministry of Tourism and Recreation felt that the report did not adequately address recreational concerns.

- After the public review was completed, the Minister, in August, 1989, having received eight requests for designation, ordered that the Environmental Assessment Board conduct a full hearing on the small hydro project proposal.

CURRENT SITUATION:

- The preliminary hearing of the EA Board was held September 10, 1990, 9:00 a.m., at the Conmee Township Community Centre, to identify parties, solicit statements of issues, hear statements and set a time and place for the main hearing. No evidence was heard.
- The Board is chaired by Ms. Grace Patterson. She is assisted by James Robb and Elaine Tracey. The parties who identified themselves are as follows:
 - Kam Power Corporation (the proponent);

- Township of Oliver (in support of the project);
- Township of Conmee (in support of project);
- Mr. Compton (a local citizen in support of project);
- Ministry of Tourism and Recreation (opposed to project);
- Friends of the Kam (opposed to the project);
- Ministry of the Environment and Ministry of Natural Resources (appearing as regulatory agencies).
- The Intervenor Funding Panel has ruled that the proponent shall pay \$21,669.50 of the anticipated \$43,000.00 legal cost of the Friends of the Kam coalition who oppose the undertaking.
- The hearing before the Environmental Assessment Board has now been scheduled to commence May 6, 1991 at the Township of Conmee Recreation Centre.

FUTURE ACTION:

- Ministry legal staff are presently preparing to represent MOE at the formal hearing stage.

Northwestern Region

KENORA MUNICIPAL LANDFILL SITE

BACKGROUND:

- The Kenora Municipal landfill site services Kenora and the Town of Jaffray and Melick (population 15,000).
- The Provisional Certificate of Approval (C OF A) for this site expires January 31, 1991.
- On May 17, 1990 Minister J. Bradley signed an exemption order allowing use of the site for up to five years provided a Part V hearing was held.
- A hearing was held in December 1990. The Board decision is to be delivered by the end of January 1991.
- A Tri-Municipal Master Plan for the Kenora, Keewatin and Jaffray-Melick area has been ongoing since the fall of 1984.

CURRENT SITUATION:

- The district office expects that a four year extension for use of the site will be granted by the Board since there was no significant opposition to use of the site.
- Use of the site includes provision for acceptance of wastes from Keewatin (provincial C of A expiring October 1991).
- Kenora, Keewatin and Jaffray-Melick are involved in the Northwest Ontario Recycling Association (NORA) Blue Box Program and backyard composting projects.

FUTURE ACTION:

- Master planning will continue to identify the long-term waste management plan for this area.
- The region will act on the Board decision regarding the use of the Kenora site.

Northwestern Region

KIMBERLY CLARK CANADA INC.
TERRACE BAY

BACKGROUND:

- Kimberly Clark Canada Inc. operates a pulp mill in Terrace Bay with a rated capacity of 1,300 air-dried metric tonnes (ADMT) per day of fully bleached kraft pulp.
- In 1987 the Company was issued a Control Order requiring that suspended solids in the effluent be reduced to 7 tonnes per day by June 1989, biochemical oxygen demanding (BOD) substances be reduced to 30 kg per ADMT of production and the toxic component of the effluent be controlled by October 1989.
- On June 3, 1988 the Company was issued an amendment to the Control Order which required the mill to reduce BOD in the effluent to 10 kg/ADMT of production by May 31, 1990. The Company was also ordered to install and have in operation a secondary treatment system by October 31, 1989.
- On October 31, 1989 the Company put into operation a secondary treatment facility consisting of an aerated stabilization basin with a design volume of 300 USMG providing for an 8-day retention time.
- On October 31, 1990 the Company was issued a new Control Order and the previous Orders were revoked. New limits were set for BOD and suspended solids to coincide with the Generic Kraft Control Order. The company was also required to begin monitoring for adsorbable organic halides (AOX) and meet AOX limit of 2.5 kg/ADMT of production by December 31, 1991.

CURRENT SITUATION:

- Current discharge data shows BOD at less than 2 kg/ADMT which represents more than a 90% reduction since implementation of the secondary treatment system.
- The final effluent has met the static bioassay requirement since the implementation of secondary treatment.
- The Company is currently meeting all Control Order and Certificate of Approval requirements for effluent discharge including the 1991 AOX limit.

FUTURE ACTION:

- Continue to monitor Kimberly Clark effluent for compliance with legal requirements.
- The Company has submitted terms of reference for a water quality study of the waters from the discharge of the lagoon to Moberly Bay including a biological assessment. A final report is to be submitted by December 31, 1991.

- The Company will be required to meet AOX limit of 2.5 kg/ADMT of production by December 31, 1991.
- The Company is to submit a report by June 30, 1991 outlining the cumulative reduction in bleach plant chlorine use achieved by projects and modifications undertaken in the past few years.
- The Company is to submit an abatement plan to address total reduced sulphur (TRS) emissions.

Northwestern Region

MADELEINE MINES LTD. - LAC DES ILES PROJECT

BACKGROUND:

- J.P. Sheridan, the major stockholder of the company, has had a poor environmental track record on other projects, and has consistently refused to cooperate with Ministry of the Environment (MOE) on this project. His public statements lead to the belief that he will attempt to start up this mine with no approvals in place.
- In 1989 the Regional Director met with Mr. Sheridan to reiterate the requirement for environmental and technical studies to support any decisions on mine wastewater handling facilities. In 1990 Regional and District staff met with the project engineer to detail deficiencies in the information provided by the company to date.
- A Requirement and Direction Order was prepared in respect of the water supply and distribution system installed without approval at the mine site. The Order was not served, as the system is no longer used for potable water.
- The company has obtained a work permit from Ministry of Natural Resources (MNR) for the construction of a mill, despite the fact that MNR was advised in 1988 not to issue any permit or approval without MOE knowledge and advice. Two impoundment dams have been constructed on site without Certificate of Approval, and the mill has been put through operational testing and is ready for production.

CURRENT SITUATION:

- The site was last inspected by MOE on January 10, 1991. No further information has yet been received regarding the closed-cycle process proposed in the November, 1990, application for a Certificate of Approval. An application to take water from a small nearby lake is presently being assessed.
- Public and industry interest in this project remains high.

FUTURE ACTION:

- The Investigations and Enforcement Branch is in the process of laying charges with respect to construction of a sewage works without a Certificate of Approval.

Northwestern Region

NORTHERN WOOD PRESERVERS INC., THUNDER BAY

BACKGROUND:

- Northern Wood Preservers Inc. operates a sawmill and wood preservative treatment plant near the inner Thunder Bay Harbour. The plant has existed since 1935.
- The plant has an annual production capacity of 120 million board feet of construction grade lumber and 60 million board feet of treated lumber. When operating at capacity, the plant employs 350 people and directly contributes \$11.5 million in mill workers' wages to the local economy.
- In 1965, an activated sludge waste treatment system was introduced to reduce the biochemical oxygen demand and phenol content of the wastewater.
- In 1982, a new treatment system, 99% effective in pentachlorophenol removal was introduced to replace the old system which only obtained 50% removal efficiency for pentachlorophenols.
- Bio-assay samples of the effluent collected since 1984 range from non-toxic to toxic, but are generally non-toxic.
- The results of an October 1984 Environment Canada survey released showed the presence of low levels of dioxins and furans on and off the site.
- Ministry of the Environment (MOE) conducted a follow-up survey in October, 1986 to verify the results. No dioxins were detected in watercolumn samples. Results from effluent, soils, sediment and sludge sampling confirm the presence of hexa, hepta and octa dioxins and furans. No. 2,3,7,8-TCDD was detected.
- Thunder Bay drinking water was tested in November, 1986 and on several occasions, subsequently, no dioxins were detected.
- A Notice of Intent to Issue a Control Order was served on the company on October 30, 1987. The company objected to being held responsible for historic pollution. The Control Order was changed accordingly to deal with only ongoing operations. It was served on November 30, 1987 and is being complied with.
- A new Control Order was issued to Abitibi-Price Inc. (former site operator), Canadian National Railway Co. (owner of the site) and Northern Wood Preservers Inc. on December 23, 1987, directing the companies to jointly study and report the extent and degree of soil, groundwater and sediment contamination at the site. Each of the companies appealed the Order.
- A Minister's Order requiring compliance with the Director's Order was issued in February, 1988.

- MOE commissioned a sediment study at the site in February, 1988, in order that remedial actions with respect to sediments could be undertaken as a first priority after the Appeal Board hearings.
- MOE made a motion before the Environmental Appeal Board to remove the stay of the Director's Order conferred by the Appeal Board. The motion was denied, and as a result, the Minister's Order (1.10) did not take effect.
- The Environmental Appeal Board hearing regarding the Control Order contamination study was scheduled to begin May 30, 1988, but was adjourned to permit the inclusion of CN Transactions Inc. in the Control Order.
- A report on the Ministry sediment studies confirmed the need for a comprehensive clean-up of the harbour and also recommended an interim clean-up of pools of creosote on the harbour floor.
- An Environmental Assessment Act exemption and Security Account approval for an interim clean-up of pools of creosote on the harbour floor were obtained. One tanker truck full of creosote was removed from the harbour early in 1989.
- The Environmental Appeal Board has heard the arguments of all parties. A decision was made on October 25, holding Northern Wood Preservers Inc., CNR and CN Transactions Inc. responsible.
- The Environmental Appeal Board granted a stay of the Order on December 21, until March 30, 1991.

CURRENT SITUATION:

- MOE has appealed the Board's decision to the Divisional Court, asking that the decision be set aside insofar as it orders the deletion of Abitibi-Price Inc. from the orders. CNR, CN Transactions and Northern Wood Preservers Inc. have also appealed the decision to the Divisional Court.
- The Divisional Court is prepared to give an early hearing date to this appeal (April).
- Northern Wood Preservers has temporarily suspended all operations at the plant, due to market conditions.

FUTURE ACTION:

- The study of the extent and degree of contamination on, and adjacent to, the property is due by August 25, 1991.

Northwestern Region

RED DEER LAKE GRANITE QUARRY APPROVALS

BACKGROUND:

- The Ministry of Northern Development and Mines (MNDM) investigated road accessible granite deposits in northwestern Ontario over the last number of years and actively promoted their usage by granite quarrying companies. A number of deposits were found in a large area (60 x 100 miles) to the north of Kenora.
- Deposits have been staked as per the requirements of the Mining Act in 1987 by Nelson Granite of Vermilion Bay and Manex of Winnipeg on deposits near Red Deer Lake and work permits were issued by Ministry of Natural Resources for bulk sampling. A Finnish company, Palin, staked four potential granite sites in the summer of 1989.
- The Farlane Environmental Protection Association (FEPA), a group of 76 cottagers in the Red Deer Lake area had forwarded a request dated January 28, 1988 to the Minister requesting that any private quarry undertaking adjacent to Red Deer Lake be designated as subject to the Environmental Assessment Act.
- Some of the quarry sites are also within the Grassy Narrows Indian Band traditional land use area over which mediation is ongoing between the Band and the Government of Ontario. A band resolution dated April 7, 1988 has requested a freeze on further development of the Red Deer Lake quarries. MNDM is assisting Nelson Granite in obtaining an operating agreement with the band. Palin is also negotiating with the Band.
- A number of other quarries (3) in adjacent areas outside the traditional landuse boundary have been reviewed. When it was determined they would have no significant environmental impact they received the various government approvals to enter the extraction phase of their operations.
- One quarry within the traditional land use area has been approved. Nelson Granite is the proponent of this quarry operation at Forgotten Lake; Nelson obtained an operating agreement for this site with Grassy Narrows signed by the Band Chief. The Band has requested all future agreements must be with the approval of Council. This quarry operated in 1989.
- MNDM had contracted a consultant to undertake noise surveys to determine if quarry sites in general can meet MOE Model Municipal Noise Control Bylaw Guidelines or achieve compliance with appropriate attenuation procedures. MOE staff participated in a public open house on September 5, 1990 to provide comments on the consultant's findings. Members of the public, FEPA, quarry operators and other ministry's staff were in attendance.

CURRENT SITUATION:

- The noise study has confirmed the necessity for major noise attenuation at the two sites adjacent to Red Deer Lake, but identified minimum noise attenuation requirements at most other potential locations.
- The Ministry continues to review the request for EA designation.
- MNDM is continuing to provide support to quarry proponents in negotiating operating agreements with the local band. One proponent's (Nelson) agreement has been before the Band for final ratification for several months and another proponent (Palin) has had extensive discussions with the Band.

FUTURE ACTION:

- Government authorities will continue to require any quarry proponent to address any environmental or other concerns brought forward in the review prior to the issuance of work permits or Certificate of Approval, if required.
- The Minister of the Environment is expected to announce a decision on the EA designation request in the near future.
- Work permits will be issued following successful conclusion of operating agreements with the Band if the site(s) are environmentally acceptable.

Northwestern Region

**SHIN HO PAPER MANUFACTURING COMPANY LIMITED OF SEOUL, KOREA -
PROPOSED PULP MILL FOR THUNDER BAY AREA**

BACKGROUND:

- There is considerable concern among local residents about the location and possible impact on water quality and air and noise pollution from a new mill.
- Shin Ho bought property in Rosslyn Village on the outskirts of Thunder Bay. Public opposition to the site has caused them to look for a new location. (Currently proposing a site owned by the Thunder Bay Harbour Commission).

CURRENT SITUATION:

- Shin Ho Paper, Korea, in conjunction with Kakabeka Timber (a local sawmill operation owned 100% by Shin Ho), has proposed to develop a 300 metric tonne per day pulp mill with 70% of the production (market pulp) to go to Korea, and 30% to North America.
- Estimated start up cost \$120 million U.S.
- Mill to be bleached chemi-thermal-mechanical-pulping operation based upon 80% hardwood/20% softwood mix.
- MOE staff have met on a number of occasions with the proponents to discuss environmental issues-which may be substantial; public reaction may also be strong.
- Shin Ho Group has stated they are committed to best available pollution control technology including secondary treatment.
- Shin Ho has proposed a location for the new pulp mill adjacent to Keefer Terminal on the Thunder Bay harbour front.

FUTURE ACTION:

- A Federal Environmental Assessment will likely be required.

Northwestern Region

SHOAL LAKE DEVELOPMENT WINNIPEG WATER SUPPLY

BACKGROUND:

- The City of Winnipeg is authorized by an Ontario 1913 Order-in-Council to draw up to 100 million gallons per day (gpd) of water from Shoal Lake. The existing intake is located in Manitoba but most of the lake is in Ontario. The water is not filtered and is treated only with chlorine and fluoride.
- Falcon Lake, on the Manitoba side, which drains into Shoal Lake, has extensive cottage development. A retaining wall has been built to divert the poor quality water flowing from Falcon Lake away from the City water intake.
- A few years ago, a Native Band (I.R. #40) on the lake applied for a permit to build cottage lots on its reserve near Winnipeg's water intake. Negotiations between the Band, the City of Winnipeg, Manitoba and Canada resulted in cancellation of the plans and an agreement by which the Band will receive compensation. Native Bands (Shoal Lake I.R. #39 and Shoal Lake I.R. #40) are concerned with the protection of water quality and possible infringement of their rights and activities.
- Winnipeg residents, as represented by the Winnipeg Water Protection Group (WPG), wish to restrict development on the lake in order to protect the quality of the supply. Attention has been focused on the proposed development of the Consolidated Professor gold mine on Stevens Island.
- The Shoal Lake mining proposal of Consolidated Professor Mines Ltd. was designated subject to the Environmental Assessment Act by Cabinet on August 9, 1989. The Minister made a public commitment to hold a portion of any environmental hearing in Winnipeg to give Manitoba residents full access to the process.

CURRENT SITUATION:

- Currently, the City of Winnipeg draws an average of 60 million gpd from Shoal Lake, but may need to extend and/or reconstruct the intake to increase the taking to the authorized limit. The City feels that this limit will meet demand to the year 2000, but further capacity may be needed after that time.
- Manitoba and Ontario officials have met on a number of occasions since 1981 to review developments close to the border; the most recent meeting was on November 30, 1990.
- Coordination of Shoal Lake decision making was being attempted by setting up meetings for the exchange of information between the various parties involved. Participants included:
 - Shoal Lake Bands IR #39 and IR #40.

- Manitoba Government Ministries.
- City of Winnipeg.
- Ontario Ministries including Ministry of the Environment (MOE), Ministry of Natural Resources (MNR), Ministry of Northern Development and Mines (MNDM), Tourism and Native Affairs.
- Environment Canada (for information)

- A meeting of Shoal Lake decision makers was held in Kenora on February 20, 1990, with participation by the Bands during the afternoon. Three working groups were formed.
- A second meeting was held at the Band Office, Shoal Lake Indian Reserve 39A on May 8, 9, 10. One day was allocated for each of the three working groups (Water Quantity, Water Quality and Land Use). The Band (I.R. #39A) had an observer but did not participate fully in the meeting.
- The Native Bands withdrew from a planned meeting of Shoal Lake decision makers and a familiarization tour of the lake scheduled for June 25 to 26, 1990 and the meeting was cancelled.
- Premier Filmon of Manitoba met with Premier Rae on November 16, 1990, to discuss a Manitoba proposal for joint environmental management of the Shoal Lake basin.
- The Ontario Minister of Mines issued a press release on December 5, 1990, confirming that the Ontario Government supports mining development on Shoal Lake as long as it does not threaten the available supply of drinking water.
- In late December, 1990, Consolidated Professor Mines was advised that its proposed project was subject to the "Environmental Assessment and Review Process" (EARP) by the Federal Department of Fisheries and Oceans.
- In early January, 1991, the Ontario Minister of Natural Resources agreed to recommend a pilot project with Shoal Lake Band #39 for natural resources development and utilization in the Shoal Lake watershed.
- In late January, 1991, representatives of the WPG met with Premier Rae and other Ontario Government officials to discuss the Shoal Lake issue and possible long term management solutions.

FUTURE ACTION:

- Direction on how to proceed in dealing with this issue and how to involve the Native Bands will be sought from the Ministerial and Cabinet level.

Northwestern Region

THUNDER BAY SEWAGE PLANT UPGRADE TO SECONDARY TREATMENT

BACKGROUND:

- The City of Thunder Bay has undertaken to proceed with a staged program to upgrade its primary sewage treatment plant to full secondary treatment in order to meet anticipated Municipal and Industrial Strategy for Abatement (MISA) requirements.
- The project, estimated to cost in excess of \$90 million, is eligible for enhanced environmental improvement grants of 33%.
- When the City's request for first-stage funding in 1989 was turned down because the project did not rank high enough on the priority list they proceeded with a small component without grants.
- The City's 1990 application was also rejected because of insufficient Provincial funds, but upon re-submission with more compelling arguments a \$1.15 million dollar component was approved. No funding commitment was made for the remainder of the project.
- Some Councillors have publicly chastised the Government for developing new environmental programs with inadequate funding. The City will not proceed further without the enhanced grants and holds the province responsible for any delays.

CURRENT SITUATION:

- Funding has again been requested for this project which is necessary to meet MISA requirements and IJC Lake Superior Clean-Up objectives.

FUTURE ACTION:

- Assist the City, as necessary, to make its case for provincial assistance for this project.

Northwestern Region

SOUTHEASTERN REGION

ACIDIC AND PARTICULATE EMISSIONS FROM
ALCAN CHEMICALS, 2810 SHEFFIELD ROAD, OTTAWA

BACKGROUND:

- The Alcan Chemical plant in Ottawa produces aluminium sulphate by reacting sulphuric acid, water and aluminium oxide in a reaction vessel. As a result of this reaction, an acidic emission is exhausted through a 20-foot, 16-inch diameter stack.
- The Ministry received complaints in August and September of 1988 from the neighbouring properties namely Transport Canada and Weldwood of Canada Company Ltd.
- During certain climatic conditions such as temperature inversions, this acidic plume impinged on the neighbouring properties.
- To remedy the situation, Alcan altered its process by increasing the reaction time, therefore reducing the acidic concentration of the emission.
- The Ministry was asked to investigate the emissions. No complaints have been received since October 1988.
- According to stack testing results, the contaminants emitted by Alcan (sulphur dioxide, sulphuric acid and total particulate) are in compliance with Ontario Regulation 308 of the Environmental Protection Act (EPA).
- Alcan was informed that they must also comply with Section 13 of the EPA.
- Alcan hired MacLaren Engineers to analyze the emissions and propose appropriate pollution control equipment.

CURRENT SITUATION

- In September of 1989, Alcan submitted a report in which they proposed to install a wet scrubber system to reduce its acidic emission. More information was required regarding the percent reduction in sulphur dioxides (SO_2) achievable in wet scrubbers.
- On October 17, 1989 a summons was served by the IEB on Alcan Chemicals charging them with six counts under Section 13 of the EPA.

- At the October 24, 1989 meeting, MacLaren Engineers submitted a 3-phase proposal to Alcan Chemicals. This 3-phase proposal consisted of the following:
 - (1) extension of the stack;
 - (2) install a water scrubber;
 - (3) install a caustic scrubber.
- MOE indicated to Alcan that a caustic scrubber would be required to abate the problem.
- On December 22, 1989, Alcan received a detailed proposal from MacLaren Engineers regarding plans and specifications on pollution control equipment for their review.
- On January 11, 1990, a meeting was held with Alcan to discuss their position. At this meeting Alcan proposed significant alterations to their process and installation of an extended stack. These changes to the process would effectively reduce their emissions.
- MOE has agreed with Alcan but will require stack testing be done. It was agreed that if these changes did not demonstrate any significant chemical changes to their emissions, a scrubber system will be installed.
- On June 4, 1990, the Ministry received MacLaren Engineers' Report with results of the February 1990 sampling.
- On July 4, 1990, Alcan pleaded guilty to two counts under Section 13 of EPA fined \$60,000.00. Penalty included a consent order under Section 146(d) to implement certificate of approval requirements within three months of issuance of certificate of approval.
- On October 4, 1990, a Certificate of Approval was issued to Alcan to extend the stack.
- On October 18, 1990, Alcan served Notice of Appeal of the Certificate of Approval.
- On January 4, 1991, Ministry staff inspected Alcan and all conditions of Certificate of Approval have been implemented.

FUTURE ACTION:

- Ministry staff will continue to respond to complaints.

Southeastern Region

AMOCO FIBERS AND FABRICS LIMITED, HAWKESBURY

BACKGROUND:

- Amoco is in southeast Hawkesbury. It has produced carpet backing since 1970.
- From 1970-81, latex was discharged to three Amoco waste lagoons. From 1983-85, Amoco retained hauler (Tricil) to transfer waste to Tricil, Quebec. Two of three lagoons emptied and filled in.
- In December 1988, Amoco initiated ground/surface water survey to assess contamination from on-property waste storage. A May 1989 report revealed vinyl chloride (carcinogen) being formed by degradation of other wastes and may migrate off property.
- The December 1989-February 1990 survey results indicate vinyl chloride on Amoco property 7 to 4800 ppb, and off site, high of 4800 ppb. U.S. Environmental Protection Agency objective is 2.0 ppb for vinyl chloride in drinking water.

CURRENT SITUATION:

- Amoco and its consultants undertook ground water monitoring. Remedial measures, i.e., purged wells, barrier systems, to confine plume being considered.
- Alternative routing arranged for water/sewer services to the newly-constructed Best Western. Soil and air monitored and found satisfactory.
- Amoco granted approval for vacuum system dewatering and containment pilot test procedure and activated carbon system to treat off-site gas. Initial tests were not successful.

FUTURE ACTION:

- MOE to develop Order to ensure Amoco defines extent of contamination and develops remedial action plan.

Southeastern Region

BATA FOOTWEAR - TOWNSHIP OF SIDNEY

BACKGROUND:

- Bata Footwear is a footwear manufacturer whose local manufacturing operation changed in the 1960s and 1970s, resulting in the generation of substantial quantities of waste solvents.
- The improper storage of these wastes was accidentally discovered in August 1989.
- Approximately 285 45-gallon drums of liquid industrial waste were stored illegally on Bata Footwear property.
- The waste has been manifested off-site for disposal and no drums remain.

CURRENT SITUATION:

- The company has retained Golder Associates, a consulting firm, to investigate the physical characteristics of the contaminant plume.
- Early reports indicate the likelihood of no off-site impact. Additional investigation is currently underway.
- A Director's Order under Sections 17 and 41, Environmental Protection Act, was issued to the company on November 1, 1990. The Order, which has been appealed, required hydrogeological investigation and site remediation. No appeal hearing date has been established.

FUTURE ACTION:

- Await submission of the report of the next investigative phase of the study.
- Await scheduling of the Appeal Board hearing.

Southeastern Region

BROCKVILLE LANDFILL SITE

BACKGROUND:

- The City of Brockville initially developed its landfill site at the present location in the mid-1960s. The landfill operation was eventually certified in the 1970s.

CURRENT SITUATION:

- In April 1990, the Ministry and City staff learned that the Brockville landfill site had exceeded the contours stipulated by the present Certificate of Approval.
- An Occurrence Report was written and forwarded to the Investigations and Enforcement Branch noting the non-compliance.
- The City of Brockville has inquired if neighbouring municipalities would assist it with its waste problem. A negative response was obtained.
- An Emergency Certificate was issued on December 4, 1990 for a three month period.

FUTURE ACTION:

- The Ministry is considering extending the present Emergency Certificate of Approval for an additional four months for a total of seven months.
- This would allow the City time to prepare and receive approval for a larger Interim Expansion of the site under the Interim Expansion policy.

Southeastern Region

CENTRAL AND SOUTH HASTINGS WASTE MANAGEMENT MASTER PLAN

BACKGROUND:

- Fifteen municipalities in Central and Southern Hastings County are in the process of developing a comprehensive long-term Waste Management Master Plan. As part of the planning process, alternatives including recycling, waste reduction, landfill, composting, energy-from-waste and at-source separation are being considered by a steering committee.
- Selection of candidate landfill sites has proven to be a problem. In 1989, several potential sites chosen using selection criteria established by public consultation were eliminated.
- Although public focus has been on landfill site selection, significant progress in the areas of recycling, home composting and public participation has been made.

CURRENT SITUATION:

- New selection criteria for a waste disposal site search have been developed with active participation by the Public Advisory Committee. The consultant has re-evaluated the entire study area in terms of potential sites and is expected to present 'candidate area' information to the Steering Committee in mid 1991.
- Difficulties have arisen in preparing an agreement to formally structure the steering committee. Several municipalities have stated that they will not sign an agreement but wish to continue in the process.
- The Steering Committee has made application for 1991-92 Financial Assistance Program funding to develop a hazardous waste depot.
- A recycling centre was opened in Trenton on September 22, 1990.
- Municipalities outside the study area such as Prince Edward County will be joining the recycling program.

FUTURE ACTION:

- Ministry staff and the Steering Committee's lawyer will be making a concerted effort to educate municipal councils of the necessity of signing a written agreement for the Central and South Hastings Master Plan Study.
- The Waste Management board will be forming a subcommittee including public participation to develop plans for a household hazardous waste site.

- The consultants are expected to complete Stage 2 of the study during mid 1991.

Southeastern Region

**CARLETON PLACE -
DISCHARGE OF UNTREATED SEWAGE FROM MINISTRY-RUN FACILITY**

BACKGROUND:

- When the Carleton Place sewage treatment plant was built in 1972, flow was underestimated in the design. The plant was unable to handle unanticipated flow from such sources as combined sewers, catch basins and leaking water mains. Early remediation efforts centered on correcting these problems.
- While this work reduced the problem, the plant continues to bypass untreated sewage exceeding plant capacity only during major storm events.
- An Ottawa Citizen article cites the Ministry's 1988 municipal discharge report, which says that 130 million litres, or 8.5% of all sewage coming into the plant that year, were bypassed untreated into the river.
- According to the Ottawa Citizen (June 27), the Ministry investigated a March 1989 spill and determined that liability for the spill would likely be found with the management of Utility Operations or with senior Ministry staff.
- This was a speculative opinion expressed by the investigators; it was not substantiated by further investigation, nor did it form the basis for the decision not to prosecute.
- The article cites a memo from an IEB investigator to the regional supervisor stating that the spill was part of the larger problem of chronic breakdowns caused by management decisions to underfund and understaff the operation.
- There is no evidence that the spill was caused by lack of staff or funds. This utility faced constraints similar to those affecting all parts of the Ministry.

CURRENT SITUATION:

- The projects (Carleton Place Sewage and Water, Almonte Sewage) are presently staffed by one supervisor, two operators, one maintenance person and a part-time clerk. A new position will be filled shortly for the laboratory.
- The plant had zero bypasses from May 1989 to March 1990, and mid-June 1990 to end of August 1990.
- Any bypassing that has occurred is a result of severe storm events, snow melt, infiltration and power outages. These have amounted to 4,693,263 gallons for 1990 or approximately 1.08% of the total flow treated.
- A comprehensive inspection on the plant was prepared in 1989 by the Ministry. The report contained 23 recommendations; all have been completed.

- In response to the recommendations, modifications were made to the plant so that sewage previously discharged untreated is now routed for partial treatment and chlorination before release. These changes were made following last year's inspection.
- A standby power unit has been installed so that bypassing will not occur during power outages.
- A variable speed pump control has been installed. This will minimize shock loadings to the plant.
- A bacteriological survey was conducted in July 1990 on the river in order to determine other sources of the bacterial contamination. These are storm sewer flows, water fowl, and overland runoff.
- It has been concluded by the Health Unit and our MOE Biologist, that beach closures may occur after the new sewage treatment plant is in operation due to other sources of contamination.
- A public meeting was held in September 1990 to explain the status of the plant expansion and the operation of the existing facility.
- An environmental assessment of plans to expand the facility has been completed. Construction should commence in Fall 1991. The work will be funded by the Ministry's Direct Grant Program and by the municipality.

FUTURE ACTION:

- The Ministry continues to investigate the operations of the plant.
- Continue to operate the sewage treatment plant as efficiently as possible with bypassing occurring only during wet weather events until the new plant is commissioned.
- Continue to liaise with the Medical Officer of Health and MOE staff with regards to beach closures and plant operation.

Southeastern Region

CHARLOTTENBURGH TOWNSHIP WASTE DISPOSAL SITE

BACKGROUND:

- Problems of non-compliance with the operating plan for the above-noted waste disposal site were brought to the attention of Council in June 1990.
- As a result, the municipality submitted a revised operating plan in August, and significant improvements have been confirmed by Ministry inspections.
- The existing emergency certificate of approval, which expired November 30, 1990, has been extended for three months and now expires February 28, 1991.
- The purpose of the 3-month extension was to allow Ministry staff adequate time to review technical documents supporting the municipality's application for an 18-month extension.
- The purpose of the 18-month extension is to prepare an application for a 5-year interim expansion of the site, until such time that the Stormont, Glengarry Waste Management Master Plan has been completed.
- The 18-month period would also permit time to prepare an application for an exemption under the Environmental Assessment Act and to hold public hearings associated with the project.
- The Ministry has adopted a "go-slow approach" to continued operation of the Township of Charlottenburgh North Waste Disposal Site.
- A condition of the 3-month extension required that the municipality submit an application for a transfer station in the event that the site would have to be closed and waste hauled to an alternative disposal site.
- The municipality appealed this condition and a hearing date has been set for January 30, 1991.
- With respect to violations of the Environmental Protection Act, charges were not laid by our Investigations and Enforcement Branch because of the quick response by the municipality to abate operational problems and comply with an acceptable operating plan.
- A public meeting to discuss the 3-month extension was called by Ministry staff on November 26, 1990.
- The Ministry's approach seemed to be acceptable to members of the public, to the Chairman of the St. Lawrence Remedial Action committee, and to members of a local citizens environmental group.

CURRENT SITUATION:

- The municipality's consultant, Totten, Sims, Hubicki, has indicated recently that the municipality intends to withdraw its appeal of the condition requiring submission of a transfer station application.
- Ministry staff have almost completed review of the 18-month application, and a decision will be made shortly on additional extensions to the site.

FUTURE ACTION:

- By February 28, 1991, the Ministry will issue a provisional certificate of approval for either a transfer station or continued use of the waste disposal site.
- A meeting with the consultant and municipal representatives is being planned to discuss terms and conditions of any subsequent approvals.
- The Ministry will continue to monitor operation of the site.

Southeastern Region

COURTAULDS FIBRES CANADA, CITY OF CORNWALL

BACKGROUND:

- Courtaulds manufactures rayon from wood pulp using sulphuric acid, sodium hydroxide, and carbon disulphide.
- Atmospheric emissions from the company contain hydrogen sulphide, carbon disulphide, and sulphur dioxide.
- Courtaulds' liquid effluent is discharged through two diffusers: one alkaline and one acid. Both discharges are extremely toxic to fish.
- The company has been convicted and fined twice for spills to the St. Lawrence River.
- The Ministry initially requested the company to improve both its atmospheric and effluent discharges.
- A forensic accountant, hired by the Ministry, reviewed the company's claim that it could not afford the cost of the environmental improvement and concluded that Courtaulds could do some but not all the environmental improvements.

CURRENT SITUATION:

- The Ministry decided to proceed with the air pollution Control Order, and it was served on March 8, 1989.
- The company has submitted, on time, the applications for the certificates of approval for the air pollution control equipment required for compliance. The certificates of approval have recently been issued.
- Courtaulds is in the Municipal-Industrial Strategy for Abatement (MISA) Organic Sector and recently completed the required monitoring for its six sewers under the regulation.
- Improvements in effluent treatment will be required once the MISA limits regulation is developed.
- Spills occur frequently. Charges relating to a 1987 spill were stayed on January 21, 1991. The trial for charges laid for sixteen spills that occurred in 1988-90 period will be held in April 1991.
- A draft Control Order requiring the company to improve its control of spills has been completed and has received initial review from our Legal Services Branch.

FUTURE ACTION

- Monitor the company's progress to comply with the MISA monitoring regulation and the air pollution Control Order.
- Incorporate comments from the legal review and forward the draft spills Control Order for approval within the Ministry.

Southeastern Region

DELORO - ARSENIC GAINING ACCESS TO MOIRA RIVER

BACKGROUND:

- Activities commenced at this site in 1867 and continued until 1961.
- Initially, gold was mined. Silver, pesticides (arsenic) and cobalt were processed later.
- As a result of the operation, there are large quantities of refining slag, tailings, calcium arsenite and arsenic pesticides on the site, slowly leaching arsenic and other materials to the water course.
- The Ministry of the Environment has been operating the arsenic removal plant at Deloro since 1979 under a Minister's Section 99 Order because the company declared its lack of sufficient funds to operate the treatment facility.
- During 1982, new treatment and collection systems were built at an approximate cost of \$1,350,000 and were started up on January 1983.
- In 1987, 20 acres of red mud tailings was covered with one half metre of crushed limestone to prevent wind erosion, particular matter carry-over, protect the dams and to add alkaline to the tailings area at a cost of \$1,000,000.
- Also in 1987, a consultant was engaged to prepare a report on the remediation of the Deloro smelting and refining plant site, control of leachate runoff from the grounds, capping the 8,000 ton calcium arsenite pile, securing the mining area and waste, and developing a method for securement of the arsenic plant sludges.

CURRENT SITUATION:

- The Ministry has reviewed the final report prepared by the consultant's team and have prepared a status report for implementation of the consultant's recommendations.
- The consultant has recommended a number of remedial plans for the securement of the site estimated at \$8,000,000 over the next five to six years.
- Some of these items include rehabilitation of the Deloro dam, added sludge storage facilities and sludge dewatering, site grading and covering with clay, construction of a waste disposal site for the calcium arsenite and miscellaneous waste disposal for contaminated items.
- Inter-Ministerial committees are meeting to examine the overall remediation programs for abandoned mining and refining sites.

FUTURE ACTION:

- To continue to monitor the Moira River and waste streams for arsenic concentrations in order to evaluate the effects of the treatment plant and to determine the remedial work effect on the tailings area.
- To implement the recommendations found in the consultant's report and obtain approval for expenses.
- Continue to operate the Deloro arsenic waste treatment plant

Southeastern Region

DOMTAR - CITY OF CORNWALL

BACKGROUND:

- The Domtar mill in Cornwall produces about 400 tonnes per day of kraft pulp and about 800 tonnes per day of paper.
- As with all kraft mills in the province, this Domtar facility is under pressure to improve its treatment of its effluent discharges and odorous emissions.

CURRENT SITUATION:

- Domtar's landfill site will reach capacity in three to four years.
- Domtar is proceeding under the Environmental Assessment Act to develop a waste management strategy and has selected a preferred site within the city limits. A local liaison committee, mainly composed of residents living nearby, meets regularly to review the progress.
- Based on the recommendations of the kraft mill expert committee report, the Ministry has served a Control Order requiring all kraft mills, including Domtar Cornwall, to control their discharges of organochlorines (measured as AOX) to 2.5 g/ADT by January 1, 1991. Improvements to its monitoring of liquid effluent, a daily and monthly requirement for its discharge of biological oxygen demand (BOD), and a future requirement for its discharges of suspended solids are also included.
- In early 1990, Domtar exceeded the BOD requirement for about a 30-day period. The Ministry has completed its investigation and recommended charges be laid.
- Domtar took measures in 1988 to cut its discharges of organochlorines by reducing the amount of chlorine used. The company's measurements show its AOX discharge is about half the requirement.
- This mill is in the Municipal-Industrial Strategy for Abatement (MISA) pulp and paper sector and has just completed the monitoring required by the regulation.
- Air pollution control improvements, brought about largely by previous Control Orders, have resulted in compliance with Regulation 308. However, frequent complaints of the company's odorous emissions are received.

FUTURE ACTION:

- Monitor company's progress to solve waste management problem and to ensure compliance with Control Order and MISA regulation.
- Follow up odour complaints to ensure odorous emissions are kept as low as possible.

- Support prosecution if charges laid.

Southeastern Region

DOMTAR - TRENTON

BACKGROUND:

- Domtar has been treating railway ties and utility poles at its 50 acre Trenton site since 1913 using two wood preserving processes: a 50:50 mixture of creosote and bunker 'C' oil for railway ties and a mixture of 95:5 light oil and pentachlorophenol for utility poles.
- Domtar staff noticed the presence of a tar-like material on the Trent River shoreline on September 3, and 10, 1987.
- A Control Order to install flow monitoring equipment, a wastewater treatment system and a leachate collection system was issued by the Region on March 1, 1988. The company did not appeal the Order.
- A Certificate of Approval (C of A) has been issued for flow monitoring equipment, a wastewater treatment system and a leachate collection system which are now installed and operating at the site.

CURRENT SITUATION:

- A recent audit of waste stored on the site has determined that the company is operating an illegal waste disposal site on the property.
- Audit samples were also collected from the company's two effluent discharges between November 5 and November 9, 1990. Preliminary analysis of these samples indicate that compliance with Certificate of Approval discharge (C of A) limits is being achieved at the North Outfall but is unlikely at the Far North Outfall.
- The sampling audit also identified that sampling is not being carried out as required by Cs of A.
- The Ministry is investigating possible violations of environmental Legislation.

FUTURE ACTION:

- A meeting has been scheduled for January 30, 1991 with Domtar representatives to assess what remedial actions they are proposing to address identified non-compliance issues.

- Further regulatory measures to achieve compliance will be assessed subsequent to receipt and consideration of Domtar's proposals.

Southeastern Region

**DOMTAR INC., CONTAINERBOARD DIVISION - TRENTON
LEAKING BLACK LIQUOR LAGOONS**

BACKGROUND:

- Domtar Packaging manufactures corrugating medium from both waste paper and logs. While converting the logs to a useable fibrous pulp, the mill generates a waste material known as black liquor. This black liquor (12 million gallons per year), is stored in two lagoons on Domtar's property. The lagoons were constructed in the late 1950s.
- Recent information indicates that the lagoons have been leaking since 1973.
- The black liquor is used as a dust suppressant on local municipal roads.

CURRENT SITUATION:

- Domtar has provided MOE with the terms of reference for a hydrogeological study.
- The Ministry is investigating Domtar with respect to possible violations of environmental legislation.
- A Control Order has been developed to formalize the requirements for a hydrogeological study and remedial measures plan.

FUTURE ACTION:

- A public meeting will be held to outline the situation and proposed actions once the draft order has been approved.
- It is anticipated that the Order will be issued in the second quarter of 1991.

Southeastern Region

HALEY INDUSTRIES - WASTEWATER TREATMENT SYSTEM

BACKGROUND:

- Haley Industries makes aluminium and magnesium castings for the aircraft industry and generates small quantities of process wastewater, stormwater and domestic sewage.
- The wastewater discharges to a seasonal ditch and therefore the effluent must either meet the MOE Water Quality Objective (WQO) or a deviation from Policy must be granted.
- In 1986, MacLaren Engineers provided a report indicating that the proposed waste treatment system could provide an effluent of better quality than the WQO.
- In October, 1986, MOE provided a Certificate of Approval with Effluent Quality Criteria as per the MacLaren report for the combined process and domestic sewage effluents.
- The MacLaren report was based on recycling rinse waters and other untested assumptions which turned out to be not feasible and the Effluent Quality Criteria cannot be met.
- Occurrence Reports have been prepared with the recommendations that the exceedances will be addressed through abatement action.

CURRENT SITUATION:

- Abatement staff have been meeting with Haley monthly since early in 1989.
- Haley Industries consultant, CH2M Hill have fine-tuned the treatment process but have indicated that the process cannot achieve the Certificate of Approval criteria.
- Since Haley is under the Municipal-Industrial Strategy for Abatement (MISA) Metal Castings Sector there is concern that MISA limits regulation may be different than Certificate of Approval requirements. They are concerned that this may have a significant impact on any plant design.
- CH2M Hill have now submitted a report to Haley. The project involves full scale pilot trials, concurrent in-house work of reduction, reuse and recycling, conventional Wastewater Treatment Plant (WWTP) design, approvals and construction at an estimated cost of \$860,000.
- The Ministry investigated and concluded that the company was aware of the problems and are taking positive steps to resolve them. Ministry staff should continue to work with the company.

FUTURE ACTION:

- 1990: full scale pilot trials and in-house work;
- 1991: evaluate data design, approvals equipment procurement and begin installation of conventional plant;
- 1992: complete installation, verify performance, begin process for upgrading to advanced if required;
- 1993: complete abatement program.
- The Ministry proposes to prepare and issue an Order that will ensure the company meets the compliance dates that they have given. The Order has been drafted and is being reviewed within the Ministry.

Southeastern Region

IVACO ROLLING MILLS, LONGUEUIL TOWNSHIP

BACKGROUND:

- Ivaco, located on the outskirts of the Village of L'Original in the Township of Longueuil, processes scrap into steel rod and wire.
- Complaints have been received over a number of years regarding the quality of air emissions from the plant. Surveys have shown that plant flue dust emissions are a source of heavy metals. The discharge has resulted in elevated metals levels in soil and vegetation in the vicinity of the plant. The Ministry's rural upper limit of normal (uln) guidelines for copper, iron, lead, zinc, and chromium have been exceeded off the company property.
- Accumulated baghouse flue dust is disposed of in an unapproved disposal site on company property. Flue dust is classified as a hazardous waste according to Ontario Regulation 309.
- Public meetings have been held with concerned citizens who reside in the vicinity of the plant.
- A news release detailing the above situation was issued on February 21, 1990.

CURRENT SITUATION:

- The Ministry of the Environment has met with the company and a timetable has been developed to initiate a remedial plan for the existing unapproved waste pile. The plan will include public consultation.
- Originally, a schedule of milestones was developed with the objective of having an improved air treatment system operational by December 31, 1990. Due to malfunctions in the development of the proposed flue dust recycling process, the installation has been delayed. MOE personnel are evaluating this delay and maintaining close contact with Ivaco.

FUTURE ACTION:

- The actions being taken by Ivaco to correct the existing environmental problems will be closely monitored by the Ministry.
- MOE to develop an Order to ensure that Ivaco installs air pollution control equipment in a timely manner, and develops a strategy to quantify, then remediate adverse effects of the flue dust storage pile on the surrounding environment.

Southeastern Region

**KENDEN INDUSTRIES LIMITED
CARLETON PLACE, ONTARIO**

BACKGROUND:

- Kenden Industries Limited were discovered in 1988 to be disposing of waste chemicals from their plant illegally on their property. The property is an island in the Mississippi River in the Town of Carleton Place, Ontario.
- The Ministry of the Environment advised the company to stop adding waste to the site immediately when it was discovered in September of 1988. Approximately 70 drums were accessible without having to excavate and these were disposed of by means of a Ministry approved hauler.
- The Investigations and Enforcement Branch have laid charges for operation of an illegal waste disposal site. The trial is under way.
- An order for the removal of the waste and completion of a hydrogeologic study was issued in June 1990.
- The company failed to comply with the terms of the order which required all waste to be removed by August 1, 1990, and the completion of a post removal hydrogeological assessment.

CURRENT SITUATION:

- The company began a program to remove the buried drums on site on October 29, 1990. This work was completed on November 3, 1990. A total of 570 drums were uncovered.
- The failure to comply with the terms of the Order has been referred to the Investigations and Enforcement Branch for investigation.

FUTURE ACTION:

- Require the company to provide a schedule of actions for the removal of remaining wastes and the completion of a hydrogeological study.
- Draft a new Order to address outstanding issues.

Southeastern Region

KILLALOE - PROVISION OF WATER

BACKGROUND:

- The Village of Killaloe has had a long history of gasoline contaminated wells dating back to 1978.
- In 1987, Greer Galloway and Associates Ltd. were authorized to prepare an Environmental Study Report on Groundwater Contamination in the Village of Killaloe under funding from the Security Account.
- Concentrations of benzene greater than the drinking water objective of 5 ug/l were detected in 15 wells although 30 residents reportedly indicated a smell of gasoline in their wells at one time or another. The highest concentration of benzene was 700 ug/l but most of the concentrations were less than 100 ug/l.
- A zone of potential contamination was established which included 76 homes. Bottled water is being provided to affected residents.
- The groundwater water piped supply was estimated to cost \$1,036,000.
- On the basis of this report the groundwater piped supply was recommended and Greer Galloway were authorized to proceed with design under project management by Project Engineering Branch.

CURRENT SITUATION:

- In 1990 the project costs had risen to almost \$3 million.
- The watermains have been installed and the treatment plant is scheduled to be completed in 1991.

FUTURE ACTION:

- Ensure that the water treatment plant is constructed as soon as possible.

Southeastern Region

**LAIDLAW WEST CARLETON LANDFILL
(PREVIOUSLY RUMP LANDFILL): LEACHATE MIGRATION**

BACKGROUND:

- The landfill dates back to the late 60s when it was established to serve a small township in Regional Municipality of Ottawa-Carleton (RMOC).
- In 1982 MOE requested owner to undertake a hydrogeologic study as it appeared leachate was surfacing in a pond across the road from the site.
- In 1984 and 1986 MOE conducted a survey of all wells in the area and found that they were satisfactory except for wells on landfill property.
- The owner acquired a buffer zone property in 1984.
- A routine monitoring program was initiated in April, 1987. Samples from 18 domestic wells surrounding the landfill are collected and analyzed on a quarter-annual basis.
- In December 1987, the owner's consultants felt that the well water analyses performed to date indicated a strong possibility of leachate contamination of some wells southeast of the landfill. Supply of potable water to these residences was immediately initiated.
- In January 1988, Laidlaw became the new owner of the landfill.
- Communal water services were extended in the fall 1988 to homes that may have been affected by leachate.
- The owner's consultants installed an extensive system of monitoring wells around site to assess alternatives for controlling leachate. The method selected was a series of leachate collecting purge wells with a discharge to the municipal sanitary sewer system.

CURRENT SITUATION:

- Full application for a revised Certificate of Approval has been sent to Waste Management Branch. Package includes Hydrogeological Report, Design and Operations Report and Financial Assurance Package.
- Laidlaw proposes to collect leachate and pump it into regional sanitary sewers for eventual treatment at the RMOC's sewage treatment plant. The RMOC is concerned with the acceptability of the leachate into the sewers and the sewage treatment plant as well as implications of new MISA regulations. The RMOC will vigorously apply its Sewer Use Bylaw. Laidlaw may have to pre-treat the leachate in order to meet the bylaw.

- The application for an updated Certificate of Approval is being reviewed by Ministry staff.
- Coordinated comments on the Hydrogeological Design and Operations Report were sent back to Laidlaw in November 1990. The Ministry is presently awaiting a reply from Laidlaw. This information is required before the Certificate of Approval can be issued.
- Laidlaw intends to install the leachate collection system as soon as approval is given.

FUTURE ACTION:

- Ensure the new Certificate of Approval with strict operating conditions is issued before March 1, 1991.
- Monitor operation to ensure compliance with conditions.

Southeastern Region

O.E. MACDOUGALL LIQUID WASTE SERVICES AND SYSTEMS

BACKGROUND:

- The liquid waste transfer station is located in Elizabethtown Township.
- Prior to 1981 the facility also included an industrial and institutional waste disposal site which accepted waste between 1962 and 1981.
- As a result of hydrogeologic studies carried out in 1982 and 1984 the Ministry, together with O.E. MacDougall (now owned by the Great Lakes Environmental Group from Burlington, Ontario) is funding individual water treatment units for a number of adjacent residents. The cost sharing agreement for water treatment expires in March, 1991.
- A March 1986 consultant report for MOE identified a number of remedial technologies to address the off-site contamination. MOE is continuing to pursue remediation options.
- As a result of a 1989 chemical fire at the facility Queen's University was hired by MOE to investigate.
- A liaison committee made up of representatives from MOE, Labour, the Medical Officer of Health, Elizabethtown Township and Great Lakes Environmental Group have met a number of times to address the recommendations of the Queen's report.
- Director's Instructions under Ontario Regulation 11/82 for a PCB storage site at O.E. MacDougall were issued in August, 1990 as a result of shipments of PCB contaminated waste received at the facility.
- The site is not licensed to handle polychlorinated biphenyls(PCBs) and, at MOE's request, the company is attempting to redirect the waste to the waste generator for appropriate storage.

CURRENT SITUATION:

- The Ministry is pursuing an investigation of the PCB waste received at the facility.
- MOE, through the Liaison Committee, is continuing to ensure that the recommendations of the Queen's report are addressed together with ongoing concerns associated with the facility.

FUTURE ACTION:

- All recommendations of the Queen's Report are expected to be addressed by April, 1991.
- MOE is continuing to investigate remediation of the facility and as well as the need for the treatment units will be taking action on this in 1991.

Southeastern Region

R. MAYER WASTE DISPOSAL SITES

BACKGROUND:

- The privately-owned Mayer waste disposal sites are located in Concession 1, Lot 1, in the Township of West Hawkesbury. These sites are situated within 500 m of residential development.
- Site A has been in operation since 1970 and primarily serves the Town of Hawkesbury (population 10,000).
- In 1982-83, ground water and surface water monitoring was conducted. Marginally, higher levels of nutrients were detected downstream in the surface water. Leachate traces in the ground water were first detected in 1988.
- Site A was issued a Control Order in 1982 due to operational problems.
- Site B was approved in 1983 to accommodate the disposal of specific solid non-hazardous industrial waste, thereby prolonging the life span at Site A. The continued operation of these sites is affected by the outcome of the Hawkesbury Area Waste Management Master Plan (HAWMMP).
- Ownership has changed, and the certificates of approval have to be amended. The approval for Site B lapsed in April 1988.
- The Ministry has recommended that the owner hire a consultant to undertake a study. This study would report on the operation, development, closure of the site, the hydrogeology, the monitoring of ground water, surface water, and methane; it would also provide a remedial action plan.

CURRENT SITUATION:

- The study report submitted to MOE on July 6, 1990 was reviewed. Findings revealed that waste has been deposited beyond property limits. Both sites have an impact on ground and surface waters beyond property limits, but the sites are not affecting the nearby residential development.
- The consultant offered various alternatives to have the site comply with current legislation and guidelines. The preferred alternative is to acquire additional land to meet buffer requirements, establish a leachate and methane monitoring program, institute remedial work to intercept off-property migration. The consultant proposes to also continue operation of the site provided that approval for interim expansion with environmental assessment exemption is granted for a period of five years, or until the HAWMMP is on stream.

FUTURE ACTION:

- MOE to develop Order that will direct the owner to:
 - (a) acquire additional land to establish a proper buffer;
 - (b) conduct additional leachate monitoring on the surface and ground water and methane production;
 - (c) institute remediation work to intercept all off-site migration;
 - (d) either close the waste disposal site immediately or provide arguments to permit the use of the site until an approved site has been established under the HAWMMP.

Southeastern Region

MISSISSIPPI RIVER WATER QUALITY

BACKGROUND:

- There has been considerable recent media attention and public concern about water quality in the Mississippi River downstream of Carleton Place.

CURRENT SITUATION:

- During the summer of 1990, the Medical Officer of Health (MOH) declared the river unfit for recreational use on a number of occasions. Two of these occasions were as a result of bypassing of the Ministry operated sewage treatment plant in Carleton Place. Because of the potential risk due to sampling lag time, the MOH has decided to placard the river permanently in 1991.
- The Sewage Treatment Plant (STP), that caused the beach closures, is an antiquated plant which cannot meet Ministry effluent criteria. A new and expanded plant will be under construction in 1991. Numerous operational changes have been made to improve the effluent quality and standby power was installed in July 1990 to address power failure problems.
- In July 1990, Ministry of Natural Resources (MNR) staff reported that an unusual percentage of fish in the river was exhibiting abnormalities and signs of stress. The abnormalities could be related to dietary deficiencies, parasites or other causes.
- Preliminary analysis by both MOE and MNR laboratories indicates that it is unlikely that fish abnormalities are caused by chemicals in the river and suggest that the abnormalities are caused by a combination of parasite damage and physical damage.
- Although chemicals in the river are an unlikely cause of the abnormalities, there are a number of potential sources of contamination that have been identified.
- Kenden Industries of Carleton Place disposed of numerous drums of solvents and glues on their property near the river. The Ministry ordered Kenden to remove all wastes and conduct a hydrogeologic study of the site in 1990. This order was not fully complied with. A new order is being drafted with the original terms. The non-compliance issue has been forwarded to Investigations and Enforcement Branch for review.
- Appletex Woollen Mills of Appleton is involved in dying of yarn and two breaches of their containment ponds for washwater occurred in 1990. The Ministry has ensured that the pond walls have been shored up and the company is presently shipping the waste off site for disposal. The dye operation will be moved to Perth in early March 1991.
- There is a number of non-point sources of pollution such as runoff from agricultural operations which may contain fertilizers and pesticides.

FUTURE ACTION:

- Meet with MNR staff to devise a strategy for the fish survey in 1991.
- Issue new order to Kenden.
- Monitor Appletex to ensure dam stability.

Southeastern Region

MURATA ERIE NORTH AMERICA LTD. - TRENTON BURIED DRUMS OF LIQUID INDUSTRIAL WASTE

BACKGROUND:

- Murata Erie North America Ltd. produces various electronic components at its site on Fraser Avenue in Trenton.
- On May 22, 1990, Ministry staff confirmed reports from Murata Erie employees that liquid industrial waste was buried on the site.
- Between July 15 and 19, 1990 Murata Erie excavated 153 drums of liquid industrial waste and placed in secure containment on the site.

CURRENT SITUATION:

- The company has provided MOE with a workplan for site investigations to determine the extent of contamination and site remediation requirements.
- The Ministry is investigating possible violations of environmental legislation.

FUTURE ACTION:

- A Control Order is being developed to finalize site decontamination requirements and remediation action required.

Southeastern Region

**NAVRO INC. - WASTE RECYCLING AND TRANSFER STATION FACILITIES
GLOUCESTER, ONTARIO**

BACKGROUND:

- Navro Inc. and its sister company B & B Waste Recycling and Disposal Limited operated an unapproved waste recycling and transfer station in the City of Gloucester prior to the issuance of a Director's Order in October 1986 to decommission the site.
- The Director's Order was appealed to the Environmental Appeal Board (EAB). On February 18, 1987, Navro appealed the EAB decision to the Divisional Court and to the Minister.
- On July 20, 1988, the Divisional Court dismissed both the appeal and a judicial review application submitted by Navro and Navro appealed this to the Court of Appeal of the Supreme Court of Ontario on August 8, 1988.
- On January 16, 1989, the Court of Appeal of the Supreme Court refused the company's application for leave to appeal to the Court of Appeal.
- The Minister's decision of November 29, 1988, dismissed the appeal and set a new date for the decommissioning.
- All material on the Navro site in the City of Gloucester was removed.
- The Minister's decision included the establishment of new dates for compliance with the Order. All contaminated soil and material was to have been removed from the site by December 31, 1989.
- Navro requested an extension to comply with the requirement for a hydrogeological study and met with the Director on March 12, 1990.

CURRENT SITUATION:

- Navro's consultant, Oliver, Mangione, McCalla has provided a decommissioning plan and is preparing a plan to implement work.

FUTURE ACTION:

- The Ministry is considering the amendment of the dates for final clean up to correspond with the consultant's plan.

Southeastern Region

NITROCHEM INC.

BACKGROUND:

- Production of ammonia, hydrogen, nitric acid, ammonium nitrate, urea and nitrogen solutions commenced at this site in 1961.
- Sources of concern include nitrogen oxides (NO_x) emissions from acid plants #1, #2 and #2, vapours from nitric acid and nitrogen solution storage tanks, NO_x from boilers and fugitive emissions.
- The Municipal Industrial Strategy for Abatement monitoring has identified the presence of dioxins and furans in the effluent at Nitrochem, Maitland.
- These levels are below the 15 pg/L guidelines for drinking water now under consideration by the Canadian Council of Ministers of the Environment.
- Nitrochem was directed to find and eliminate the sources of dioxins and furans in its effluent on May 3, 1990.

CURRENT SITUATION:

- A Provincial Officer's report has been prepared which addresses nitrogen oxides emissions. A meeting with the Company was held in December 1990 to discuss the contents of the draft report. The report is under review and a Control Order is being prepared.
- The Company is monitoring dioxins and furans in the plant effluent on a monthly basis; however, the source of the contamination is not identified at this time.

FUTURE ACTION:

- An Order concerning NO_x emissions will be issued in the second quarter of 1991.
- Ministry staff are continuing to liaise with the Company in an effort to determine the source of dioxin and furan contamination and are reviewing monthly data to ensure dioxins are eliminated.

Southeastern Region

OSGOODE SAND AND GRAVEL LTD.

BACKGROUND:

- Osgoode Sand and Gravel Limited has operated a licensed sand pit in Osgoode Township since 1972. The Ministry has been dealing with this company for several years to prevent the operation of an illegal waste disposal site.
- Sixteen inspections were made by Ministry staff between October 1987 and February 1989. Observations indicated that waste material was being disposed of and open burning of this material was taking place.

CURRENT SITUATION:

- A public meeting was held on February 7, 1990 to hear the company's and the public concerns prior to issuance of a Director's Order to remove waste buried on the company's property.
- The Director's Order was served on the company on April 11, 1990 and was appealed to the Environmental Appeal Board. The Board upheld the Order in a hearing in October 1990.
- The Ministry commenced prosecution proceedings with a court appearance on May 17, 1990, where the company entered a plea to quash the matter which was not granted by the provincial court on September 28, 1990.
- The company has provided hydrogeological reports which are being reviewed by the Ministry.
- The company made application for a Waste Management Site Certificate on October 3, 1990 which was returned to the company requesting more information.
- The company has ignored all requests by Ministry staff to stop transferring and burying waste on site.

FUTURE ACTION:

- Consideration is being given by staff to recommend revoking the company's waste management system certificate.
- Ensure compliance with Order.
- Attend court for prosecution hearings on April 24, 1991.

Southeastern Region

OTTAWA-CARLETON WASTE MANAGEMENT MASTER PLAN AND INCINERATION

BACKGROUND:

- Regional Municipality of Ottawa-Carleton (RMOC) Waste Management Master Plan (Wasteplan) was launched early in 1985.
- In the fall of 1985 and spring of 1986 public meetings were held throughout the RMOC on the Phase I report. There was considerable opposition to the location of the potential sites.
- MacLaren Engineers completed Stage II of the draft Master Plan in June, 1987. The draft plan was an integrated system of waste reduction and recycling, energy-from-waste (EFW), and landfill. Target for recycling was to reduce projected municipalities waste quantities for the year 2001 by 40%. With the Minister's announcement to reduce waste by 50% in the Province through recycling by the year 2000, RMOC will have to revise their goal.
- Preferred location for the EFW plant was on the boundary between the Cities of Gloucester and Ottawa (Site 19). Preferred landfill site was in the Township of Cumberland (Site 10).
- In June 1987, the Township of Cumberland proposed an alternative to the Task Force: an integrated facility containing an EFW plant and a residue landfill.
- Public meetings on the EFW and landfill sites were held in the fall 1987 in the communities close to the sites. Public attendance was estimated to be between 700 to 1,000 at each meeting and opposition to the proposals was very strong.
- Most of the property at proposed EFW site is controlled by the National Capital Commission (NCC). On November 27, 1987, the NCC informed RMOC that the site should not be considered for an incinerator. The RMOC was extremely upset about this change in NCC's position, since considerable money had been spent considering the site.
- The Task Force decided to invite private sector parties to submit proposals for potentially suitable sites for a landfill and/or EFW. These proposals were submitted to the Task Force on March 15, 1989.

CURRENT SITUATION:

- Since some of the private sector EFW sites are outside the Greenbelt it was necessary to assess and rate all suitable sites including the private sector ones in RMOC. This resulted in a delay of completing Stage II to early 1989. Draft report was submitted to the Task Force in March 1989.

- RMOC retained a consultant to review their handling of the waste management plan in line with the Halton decision. Consultant's review was completed 1990, and pointed out that major changes in approach to the study would be required.
- A citizens' review committee was established in 1989 to provide more public input to the Task Force.
- Administration of the Waste Management Master Plan is currently being restructured, keeping in mind the effects of the Halton decision.

FUTURE ACTION:

- Continue to assist RMOC develop and implement the Waste Management Master Plan.
- Assist RMOC in securing funding from the Ministry for the Waste Master Plan study.
- Ensure RMOC revise their recycling goals to conform with the Ministry's target of 50% by year 2000.

Southeastern Region

OTTAWA-CARLETON WATER QUALITY IN PRIVATE SERVICES DEVELOPMENT

BACKGROUND:

- For several years, MOE has come under considerable pressure from developers and consultants to more clearly define the application of the Ontario Drinking Water Objectives for private services subdivisions.
- The Southeastern Region, in cooperation with the Water Resources Branch, developed a guideline which established health and aesthetic water quality requirements for proposed private services subdivisions. On the basis of this guideline, MOE would object to developments where the health related criteria are exceeded but would allow treatment for certain aesthetic parameters where it can be demonstrated that treatment is both practical and reasonable.
- The Regional Municipality of Ottawa-Carleton (RMOC) Regional Council has adopted a community standard more restrictive than the provincial approach by subsequently passing a Motion resolving that RMOC would "reject all applications for groundwater developments" where the "quantity or quality of water is suspect" and further that MOE should assume all liability for treatment system performance.

CURRENT SITUATION:

- A number of subdivisions are on hold until RMOC and/or the local municipalities within RMOC decide on the acceptance of private in-home water treatment systems.
- RMOC has initiated a Rural Servicing Study to determine private servicing development requirements.
- A Ministry guideline for the preparation of servicing studies for privately serviced development is under preparation.

FUTURE ACTION:

- MOE is continuing to work with RMOC in a cooperative manner to resolve the water quality and private treatment system concerns.

Southeastern Region

OTTAWA RIVER BEACH CLOSURES: BRITANNIA AND WESTBORO BEACHES

BACKGROUND:

- Britannia and Westboro Beaches were closed periodically in the past due mainly to stormwater runoff and by-passing in combined sewers during heavy rainfalls.
- Gore and Storrie were retained in 1986 by the City to investigate and recommend remedial action at Britannia. They recommended a pump be installed to circulate water in the swimming area (cost \$350,000) and/or a pier be extended at Britannia Beach (\$240,000).

CURRENT SITUATION:

- Britannia Beach was closed for a large part of the summer of 1986. In 1987 and 1988 it was opened more frequently. In 1989, Britannia was closed for the whole summer due to dredging.
- Pollution levels kept the beach closed in early August 1990 even without significant rainfall. The problem was traced back to exfiltration from a nearby sanitary sewer.
- From 1986 to 1988 experiences at Westboro Beach were similar to those at Britannia. In 1989 and 1990 it remained open until mid August. It was reopened when tests showed that it would be safe to do so.
- In 1987, the Britannia pier was extended about 200 metres into the river. Before the pump system is installed the City wants to assess the efficiency of pier extension.
- On June 22, 1988, the Regional Municipality of Ottawa-Carleton (RMOC) set up an Ad Hoc Committee on beach pollution. Mission of the Committee is to have pollution free beaches by the year 2001. In January 1989, the Committee became part of the RMOC Environmental Services Committee.
- In 1991, the City of Ottawa is planning to implement a seagull management program at both beaches.

FUTURE ACTION:

- Work closely with City to ensure beaches are opened as much as possible.

- Act as an on-going resource person to the RMOC Environmental Services Committee looking at beach pollution and assist the Committee in securing funding for studies and remedial works.

Southeastern Region

PEMBROKE AND AREA WASTE MANAGEMENT MASTER PLAN

BACKGROUND:

- In 1987, the Pembroke and Area Waste Management Master Plan Steering Committee was established representing the following municipalities: City of Pembroke, Villages of Beachburg, Eganville and Petawawa, Townships of Alice and Fraser, Pembroke, Petawawa, Sebastopol, Stafford, Westmeath and Wilberforce.
- A public Liaison Committee was established at the same time with two representatives from each municipality. The Chairman and Vice-Chairman sat as full members of the Steering Committee.
- The firm of Marshall Macklin Monaghan Limited, Don Mills was selected in association with Janota Patrick, Engineering Consultants, Pembroke to undertake the study.
- Stage One of the Master Plan was completed in January 1988 which outlined the existing waste management systems, waste quantities and characteristics, alternative waste management technologies and processes, and criteria to select and evaluate waste management alternatives and their candidate sites.
- Significant public interest has developed in and around the candidate areas resulting in the formation of interest groups.

CURRENT SITUATION:

- The Stage 2B report which identifies six candidate sites for landfill has been released for public and agency review.
- A funding commitment has been confirmed from MOE and OMMRI for implementation of a recycling program.

FUTURE ACTION:

- MOE will continue to support the Pembroke and Area Municipalities in the development and implementation of their Waste Management Master Plan.
- Recycling Study expected to be implemented in 1991.

Southeastern Region

RIDEAU LAKES SHORELINE CAPACITY STUDY

BACKGROUND:

- Concern has been raised by the shoreline owner associations on three lakes on the Rideau River regarding the demand for shoreline development and specifically condominium type developments (Sheldons Bay).
- The municipalities (seven in total) which front on Lower Rideau, Big Rideau and Upper Rideau Lakes have arranged for a consultant to determine the capacity for the lakes taking into consideration the water quality, fisheries, boating and physical shoreline capabilities.

The seven municipalities are:

1. Bastard and South Burgess
2. North Crosby
3. Westport
4. Bedford
5. North Burgess
6. North Elmsley
7. South Elmsley

- The Rideau Valley Conservation Authority (RVCA) is acting as the coordinating agency. A technical working group consisting of one representative from each of the RVCA, the Rideau Canal Authority - Canadian Parks Service (CPS), the Ministry of Natural Resources (MNR), the Ministry of the Environment (MOE) and the consultant, Mr. M. Michalski has met on a number of occasions. A representative from the planning consultant for the municipality J.L. Richards and Associates also sits on the working group.
- A steering committee includes representation from each of the municipalities and the technical working group members.
- The \$51,000 cost of the study is being funded by the steering committee members. The municipalities are covering 50% of the cost with the balance being equally divided among MOE, MNR and CPS.
- The study will require calculations of the amount and type of shoreline use; the information to be acquired through a questionnaire prepared by the consultant.
- MOE has contributed all the available water quality data for every lake within the watershed.

CURRENT SITUATION:

- Questionnaire results have been compiled.

- The scope of the project has been expanded to include all the municipalities in the head waters to the three main study lakes. Since nutrient supplies from upstream lakes also influence water quality in Upper, Lower and Big Rideau Lakes, the head water lakes have been added to the study.

The additional municipalities involved are:

1. Town of Perth
2. Drummond Township
3. Bathurst Township
4. South Sherbrooke Township
5. Oso Township
6. Olden Township
7. Hinchinbrooke Township
8. Kennebec Township

- The expanded project means that we are now proposing to set targets/objectives and prepare carrying capacity estimates for the lakes in the Tay River Watershed which flows into the Rideau.
- The final report will make recommendations regarding future development capacity, planning policies and remedial programs.

FUTURE ACTION:

- The consultant's draft report is expected to be reviewed at a meeting of the Steering Committee on February 19, 1991.
- Report is expected to be finalized in the spring.

Southeastern Region

RIDEAU RIVER STORMWATER MANAGEMENT STUDY

BACKGROUND:

- Beaches in the lower reach of the Rideau River have been closed since 1970. Only the beach at Mooney's Bay, which is the most upstream beach in the urbanized portion of the Rideau River remains open.
- In 1979 the Rideau River Stormwater Management Study began with major funding provided by Provincial Lottery Trust Fund. Goal of the study was to develop a cost-effective stormwater management strategy which would improve the quality of water in the lower Rideau River and permit a wide range of recreational uses in the river, in particular, swimming. The Rideau River Stormwater Management Report (RRSMR), which was completed in 1983, offered recommendations for both the developed and the developing urban areas.
- For the developed urban area the recommendations were:
 - (a) elimination of local pollution sources; and
 - (b) control of pigeons and construction of storm sewer interceptor.

The cost of the recommendations was estimated at \$11.6 million. The City of Ottawa and the Regional Municipality of Ottawa-Carleton (RMOC) have virtually eliminated point sources of water quality problems upstream of Brewers Beach, which is the next beach downstream of Mooney's Beach.

- For the developing urban areas the recommendation was to implement stormwater quality management facilities for all new developments.
- Presently, there are over twenty stormwater quality management facilities in the RMOC.
- Problems related to protecting Rideau River water quality:
 - (a) RRSMR major recommendations not implemented by RMOC;
 - (b) A Watershed Stormwater Plan is required so that Master Drainage Plans developed by municipalities will fit into overall strategy;
 - (c) MOE staff believe mixing zones for ponds constructed to date are overlapping and this affects water quality;
 - (d) Ponds not being effectively monitored and operated; and
 - (e) Major developments proposed along the river if allowed to proceed as in the past will have major water quality effects on the river.

CURRENT SITUATION:

- The Rideau River water quality is continuing to degenerate. The Medical Officer of Health closed the Mooney's Bay beach from August 15, 1990 to the end of the swimming season.
- Municipalities have been formally required by MOE to increase level of treatment of stormwater for all new developments. Disinfection of stormwater to swimming water standards is required.
- Under the Beaches Program, District staff have recommended that the opening of Brewers Park Beach be given a high priority. The City of Ottawa and the RMOC Health Department are carrying out a monitoring program to correlate bacteriological results with rainfall to see if a pattern can be determined as to when the beach could be open. This would be similar to the system used for Mooney's Bay beach which is just upstream.
- There is no plan to open beaches downstream of Brewer Park.
- Municipalities and RMOC have initiated an up-date of the previous Stormwater Management Study. MOE is providing 50% funding towards the study. Study to be completed in 1991.
- MOE District staff has completed an inspection program for all stormwater management facilities in the Rideau River system.

FUTURE ACTION:

- Act as on-going resource person to the RMOC Environmental Services Committee looking at beach pollution.
- Ensure ponds are properly monitored and operated.
- Assist municipalities in securing funding for studies and remedial projects.
- Ensure municipalities implement recommendations of the report on river quality. Report to be completed in 1991.

Southeastern Region

STORRINGTON LANDFILL, KINGSTON

BACKGROUND:

- Extremely low levels of trichloroethylene (TCE) were recently discovered in the leachate from the Storrington Landfill as a result of routine groundwater analysis.
- A January 24, 1990 newspaper article indicated that Storrington Citizens Against Trash (SCAT) had test results indicating levels of less than 4 ppb of TCE.
- These results were obtained as a result of joint sampling by Laidlaw and SCAT in the fall of 1990. The SCAT's samples were submitted to the MOE Lab for analysis.
- The Ministry granted Laidlaw Waste Management Systems a final, four-month emergency extension on its Storrington Landfill site north of Kingston. The site which was to close December 31, 1990, will remain open until April 30, 1991. The site is used by the City of Kingston, the Town of Gananoque, the Townships of Kingston, Storrington, South Fredericksburgh and Howe Island as well as local federal correctional institutions and Canadian Forces Base, Kingston.
- The Minister announced a second, emergency extension for the Storrington Landfill site on December 4, 1990 and asked them to submit by January 15, 1991 their plans for 3Rs and for waste disposal after May 1, 1991.
- The City and Township 3Rs plans are conditional on the Ministry agreeing to a number of requests.
- The Ministry has also received the plans from Gananoque, Howe Island, Storrington and South Fredericksburgh, which are more general. That is because the Ministry has agreed to fund 100% of a 3Rs study designed to assess their options. The terms of reference for the study have been sent to the municipalities.
- The Ministry has agreed to finance 50% of the cost of a joint 3Rs coordinator for the four municipalities for one year. The coordinator's job is to help the municipalities put their 3Rs plans into action.
- The Ministry has placed a priority on approving 3Rs facilities such as depots, leaf composting, modifications to existing transfer stations for the users of Storrington Landfill site.
- Kingston and Kingston Township asked their Waste Management Master Plan (WMMP) consultants to prepare a proposal for speeding up the study to establish new disposal facilities.
- The schedule calls for them to select a preferred landfill site and overall waste management system by late February 1991.

- A diversion system that includes composting and a material recovery facility was approved on January 15, 1991 by the Waste Management Master Plan steering committee for further study.
- This schedule also calls for a waste diversion system to be started as early as the fall of 1991 and for construction to start on the landfill site in 1994.

CURRENT SITUATION:

- The Kingston/Frontenac Home Builders Association is currently exploring the possibility of a pilot study to reduce and recycle construction wastes. The Ministry of Government Services (MGS) has started a 3Rs program for government offices in Kingston.
- Laidlaw's application to modify its Dalton Avenue transfer station to facilitate the transfer of waste from the Kingston area has been approved.
- The City and the Ministry met with Ottawa-Carleton to talk about taking Kingston area waste to Laidlaw's West Carleton site when Storrington closes. Ottawa-Carleton remains opposed unless the government approves proposals to give the regional municipality control of the waste going to the landfill sites in the regional municipality.
- In 1988, Laidlaw applied to extend the Storrington site southwards. The extension would allow the site to remain open for another ten years. This proposal was designated for an EA in the fall of 1989.
- The EA hearing for the southward expansion of the landfill site is expected to begin in the fall of 1991 and continue well into 1992.

FUTURE ACTION:

- The Ministry is reviewing the 3Rs plans from the municipalities. The Ministry is meeting with them to go over their plans January 31, 1991.
- The Ministry will review carefully all additional requests for money to determine how it may assist the municipalities to reduce and to recycle waste now and in the future.
- The proponent has offered to carry out another round of joint resampling with SCAT on January 29, 1991. Samples will be submitted to MOE and independent labs for analysis.

Southeastern Region

TRAIL ROAD LANDFILL SITE: OTTAWA-CARLETON

BACKGROUND:

- The Trail Road Landfill has been operated by the Regional Municipality of Ottawa-Carleton (RMOC) since May 1980. MOE authorized operation of Stage I of the landfill in 1977 under the condition that RMOC monitor effects of landfill on groundwater conditions. This condition was placed on the certificate because of the following:
 1. at the time of the hearings in 1976 RMOC's consultants indicated leachate would migrate into a swamp area. Water quality at this point would meet MOE guidelines, but several people questioned findings.
 2. the Environmental Assessment Hearing Board recommended a clay liner be provided below the entire landfill area above the water table to prevent leachate from migrating to the water table. Liner was not installed because RMOC indicated it would appeal condition if imposed and there were insufficient technical reasons to contest the RMOC position before the Environmental Appeal Board.
- For these reasons, MOE only approved Stage I and requested implementation of an extensive monitoring program. If the monitoring indicated a problem RMOC would have to control the leachate.
- In 1982, it became apparent groundwater levels at the site had dropped by up to 18 feet as a result of nearby quarry operations. Monitoring program detected transfer of leachate to lower aquifer.
- The quarry was expropriated by RMOC in June 1989 in order to control groundwater table elevations and has been included as part of the site buffer lands.
- Installation of an impervious membrane covering Stage I was completed in December 1988 at a cost of \$7.0 million. This constitutes the major provision for leachate control.
- Stage II reached final capacity in October 1990, Stage III was put into service.
- Stage III was constructed with a liner and leachate collection system.

CURRENT SITUATION:

- Presently there is no leachate migrating off site.

- Methane in very low concentrations (less than 0.2% compared to the lower explosive limit of 5.3%), has been detected in a house near the landfill site. Gas concentrations are being continuously monitored, and RMOC has expropriated the house. The residents have vacated the building which will be demolished shortly.
- In order to make room for the upgrading of the Green Creek Pollution Control Centre as required by MOE, it was necessary to take the sludge lagoons out of operation and dispose of sludge at Trail Road.
- There are citizens in the area of the Trail Road Landfill who want the site closed. A Citizens' Group requested RMOC to set up a Committee with citizen representatives to oversee operation and development of the site. RMOC rejected this request. An unofficial citizens committee has been developed and is monitoring operation of the site.

FUTURE ACTION:

- MOE will continue to work with RMOC and will give a high priority to any submissions for Certificates of Approval.
- Ministry staff will continue to monitor the operation of this site and ensure that all conditions on Certificate of Approval are adhered to.
- Ensure RMOC continues investigations on the effectiveness of a gas extraction system along the existing property boundary which is expected to resolve the methane problem.

Southeastern Region

TRUSCAN PROPERTY, LANDRY STREET, OTTAWA

BACKGROUND:

- Otto and Bryden Architects, on behalf of Ottawa Federation of Housing Co-operatives, retained Fondex to conduct an Environmental Contamination Investigation prior to purchasing the property. Ottawa District office staff attended a meeting at the site on July 30, 1990 and was provided with a report which indicated levels of lead, cadmium, zinc, arsenic, selenium, nitrogen, copper, molybdenum, oil and grease were in excess of Decommissioning Guidelines.
- Adjacent to the vacant lot is a school - Ecole Baribeau.
- The author of the study indicated that during sampling he was approached by neighbours who stated they had uncovered similar type waste bottles. when working in their backyards.
- On July 31, 1990 MOE staff met with Regional Municipality of Ottawa-Carleton Health Department to determine course of action regarding neighbouring properties.
- August 3, 1990 - letter sent to Clerk of City of Vanier informing of pending phototoxicology survey and status of situation.
- News Releases informing public of the situation were issued by MOE on August 8, 1990 and September 21, 1990.
- The Ministry has conducted a soil and vegetation study in the neighbourhood. No samples were obtained from the actual site. To date, 41 locations have been sampled for surface conditions in the residential/school area. Results expected by May 1991.
- Sample analysis results indicated lead, mercury, molybdenum and selenium levels in excess of MOEnvironment Decommissioning Guidelines at one residential location.
- Health Department, City of Vanier, School Board and owner of residence were informed of study results.
- The final report is expected on February 28, 1991.

CURRENT SITUATION:

- Awaiting consultant's report on property.
- Information from above study may be applicable to adjoining residential properties. MOE will retain historical researcher for off-site properties under the security fund.

FUTURE ACTION:

- Ensure clean-up of site in compliance with decommissioning guidelines.
- Determine if action is required on any other properties in the area.
- Keep the Health Department informed of the situation.

Southeastern Region

WESTPORT EXPANSION OF THE SEWAGE TREATMENT SYSTEM

BACKGROUND:

- The Village of Westport is located on Big Rideau Lake approximately 10 kilometres west of Highway 15.
- The village sewage is treated by a Ministry operated seasonal discharge lagoon which discharges its treated sewage into Big Rideau Lake, spring and fall.
- The Village is currently under growth restrictions. There is no capacity available to provide treatment for any additional development.

CURRENT SITUATION:

- A consultant has been retained by the municipality to prepare an Environmental Study Report (ESR).
- The consultant recommended lagoon expansion as the preferred alternative at a public meeting which was held in the Fall, 1991.

FUTURE ACTION:

- The consultant will complete the ESR and file it with the municipality.
- It is expected that a "bump up" will be requested under the Class Environmental Assessment for Municipal Sewage and Water Projects.
- MOE is continuing to receive letters, primarily from members of the cottagers' association, objecting to the alternative recommended by the consultant.
- MOE is recommending that the public raise their concerns with the municipality to allow them to be addressed in developing the final recommendation in the ESR.

Southeastern Region

SOUTHWESTERN REGION

**BOB'S AUTO WRECKING
TIRE DEPOT SITE - CARRICK TOWNSHIP**

BACKGROUND:

- Approximately 150,000-190,000 tires are on this site. MOE provided security on site since April 1990. There is potential for off site impacts to the public and the environment in the event of fire on this property.
- The owner filed an application with the Ministry for approval of a tire storage facility on May 31, 1990. Approval has been withheld because of site non-compliance with the Fire Code.
- The local Fire Official, Mel Waechter issued a Notice of Violation, June 12/90 and an Inspection Report under the Fire Code, June 26/90 which stated that the site cannot meet the amended fire code requirements for above ground storage.
- The site owners, Ronald (Randy) and Donna Butts have not taken any action to date, citing financial hardship. They claim that the previous owner generated the tire pile on the site and they have not added to it.

CURRENT SITUATION:

- MOE provided security 24 hours/day, 7 days/week continues. To date over \$140,000 has been spent on security for this site (currently at \$3,612 per week).
- A notice with Draft Order under Section 17 EPA has been issued to the current and previous property owners on December 11, 1990. Deadline on Notice for responses to the Regional Director has been set for January 23, 1991.
- The local Fire Chief is being pressured by the Fire Marshall's Office to lay charges under the Ontario Fire Code.
- Ministry staff are currently reviewing submissions made by parties named in the Order.
- Media interest (paper, radio & TV) is high on this issue.

FUTURE ACTION:

- The Regional Director will consider submissions made by those named in the Order before proceeding.
- MOE security will continue.
- The local fire official will be kept up-to-date on MOE actions.

Southwestern Region

DNN WINDSOR - ZINC CONTAMINATED SOIL

BACKGROUND:

- DNN, a steel consortium consisting of Dofasco, Nippon Steel (Japan) and National Steel (USA) recently announced that a \$200 million steel galvanizing plant would be built in Windsor at the Ojibway Industrial Park.
- Before purchasing the proposed site from the City the consortium conducted an environmental audit at the site.
- The audit showed that a ditch which runs through the site and part of the land adjacent to the ditch contained zinc and arsenic above MOE's industrial decommissioning guidelines.
- As part of the purchase agreement, the City of Windsor undertook to clean up the site.
- District staff at MOE Windsor Office, on review of the data submitted from the audit, stated that the contaminated material is a solid non-hazardous waste and is suitable for landfilling at any certified landfill and also because of the nature of the material it would be suitable for daily cover.

CURRENT SITUATION:

- The soil went to Essex County Landfill #3 during October and November.
- The Landfill Advisory Committee agreed to accept the waste and required Windsor to pay the full tipping fee (\$35/tonne).
- MAD (Maidstone Against Dumping) wanted the soil buried and covered.
- The soil has now been covered.

FUTURE ACTION:

- Continue to monitor situation.

Southwestern Region

DEEP WELL DISPOSAL - SARNIA

BACKGROUND:

- From time to time, the media and/or the public express concerns that industrial wastes from deep well injection practices during 1958-73 might be entering the St. Clair River and/or the freshwater aquifer.
- A Ministry-funded hydrogeological investigation of the impacts of injected wastes on the Lambton County freshwater aquifer has been performed by Intera Technologies, a private consulting firm.
- The findings of this \$950,000 study indicated there is negligible potential for impacts on either the St. Clair River or the freshwater aquifer from deep well injection of wastes.
- Over the period of 1958-1973, approximately 8 billion cubic meters of liquid industrial wastes containing mainly phenolics, sulphides and caustics were injected into a "lost circulation zone" of the Detroit River geological formation approximately 200 meters below the surface. The injection was done initially by gravity and later by pressure in some cases up to 1,000 psi.
- During the period of pressurized injection, water wells in the Sarnia and Port Huron areas flowed with contaminants suspected to have originated from the deep well disposal of wastes which could have been forced up gradient by the high pressures.
- In 1974, the Ministry of the Environment banned the disposal of industrial wastes into the Detroit River Geological Zone within 8 km of the St. Clair River.
- Intera Technologies was retained by the Ministry of the Environment in 1985 to install a network of approximately 30 monitoring wells to the Lambton County aquifer and one deep borehole to the Detroit River Geological formation.

CURRENT SITUATION:

- The network of aquifer wells throughout the County has indicated that no contamination has been detected in the aquifer, except in the very immediate proximity to the former disposal wells at Esso Petroleum (elevated phenols) on Esso Petroleum property.
- The deep borehole indicated the residual contamination of the Detroit River formation from past injection practices. The piezometric head (water pressure) of the formation is lower than that of the St. Clair River, the freshwater aquifer and surrounding bedrock groundwaters. This means any movement of fluids would be into, not out of, the disposal zone.

FUTURE ACTION:

- The Ministry is evaluating the conclusions of the study and is considering what follow-up action is required.

Southwestern Region

DOW CHEMICAL: SARNIA

BACKGROUND:

- In August 1985, Dow's Sarnia plant discharged perchloroethylene into the St. Clair River.
- The company spent approximately \$1 million to clean up the river as a result of the spill.
- The company was charged, pleaded guilty to four charges of environmental impairment and was fined \$4,000 per charge (total of \$16,000). The maximum fine for environmental impairment at that time was \$5,000. Had the court ruled the material in question to be a "hazardous waste", the maximum fine would have been \$25,000 per count. Since that time the fine structures have been substantially increased to maximums of \$200,000 and \$400,000 for first and subsequent convictions.
- A study conducted by MOE and Environment Canada revealed a number of organic compounds being discharged continuously from the company's property.
- In October and November 1990, two ethylbenzene spills from Dow resulted in water plant closures at Wallaceburg and Walpole Island.

CURRENT SITUATION:

- Dow announced that it would be spending approximately \$12 million on environmental control at the Sarnia Plant.
- The company installed a slurry wall and dewatering wells between First and Second Street to intercept groundwater movement from the property to the river. Any contaminated groundwater will be treated.
- The abatement efforts taken resulted in an 83% reduction in the total volatile loadings discharged to the St. Clair River between November 1985 and May 1986. Total volatiles includes perchloroethylene.
- Subsequent efforts have resulted in an additional 93% reduction between 1986 and 1989 year-end.
- Similarly, chlorinated aromatics were reduced by 82% between November 1985 and May 1986 and by a further 89% between 1986 and the 1989 year-end.

- On December 24, 1990, a Director's Order designed to reduce spills to the St. Clair River was served on Dow. The Order required Dow to improve spill detection, response plans and environmental training. On January 8, 1990 the Company filed an Appeal of the Order. On January 21, 1991, it filed a Notice of Motion with the Environmental Appeal Board to stay parts of the Order. The Notice did not specify the parts of the Order requested to be stayed.
- The ethylbenzene spills are under investigation by the Investigations and Enforcement Branch.
- The Ministry expects the Company to operate its plants in an environmentally responsible manner.

FUTURE ACTION:

- The Ministry will continue to monitor the company's activities and take appropriate action as necessary.
- The Ministry is proceeding with the MISA program, which includes Dow Chemical in the organic sector which is the second industrial sector to come on-line in the program.
- The Ministry will participate in the hearings to be held by the Environmental Appeal Board with respect to the spill prevention Order.
- The Ministry is also proceeding with the St. Clair River Remedial Action Plan with full public participation.

Southwestern Region

ESSEX WINDSOR WASTE MANAGEMENT PROBLEMS

BACKGROUND:

- In the late 1960s, the County of Essex implemented a county-wide solid waste management system. In 1970, the City of Windsor joined the Essex Windsor Waste Management Committee (EWWMC).
- A Master Plan was implemented in 1985 with MOE having representation on the committee.
- Proctor and Redfern have been chosen as consultants to the Committee.
- County/City conflicts have slowed progress.

CURRENT SITUATION:

- In May 1988, the consultant released a report naming four sites to be further studied. (Phase 2 of the Master Plan Process).
- These were expansion of Essex Landfill #1, expansion of Essex Landfill #3, a quarry in Anderdon Township and a quarry in the Town of Amherstburg.
- Public meetings were held in late June 1988 near each site to provide the public with information and receive comments about the particular site.
- Each site was opposed by citizens' groups and each host municipality.
- Citizen Groups involved are MAD (Maidstone Against Dumping) - Essex Landfill #3 and CIA (Colchester in Action) - Essex Landfill #1.
- After Public input sessions in the summer of 1988, Essex Windsor Waste Management Committee rejected the consultants report stating that the consultant misinterpreted the criteria set out by the committee.
- The selection criteria were changed and the consultants were requested to re-evaluate the potential sites. In June 1989, the consultants named seven sites to be further studied (Phase 2B of the Master Plan Process).
- The original four sites plus three greenfield sites were named.
- Again opposition arose at each site.
- On May 15, 1990, the Phase 3 report was released naming the two existing sites, Landfills #1 and #3, to be expanded to meet the County/City needs for the next 25 years.

- The consultant estimated that there would be a gap of up to four years in between when Essex Landfill #3 is closed (December 1992) and the establishment of the new sites.
- The Committee is frustrated with Ministry actions during this process.
- Members of the Committee met with the Minister on January 22, 1991 to discuss their problems. Local MPPs and the Township of Maidstone were also represented.
- The Committee's preferred course of action is to have an emergency certificate issued for Landfill #3 to allow landfilling to continue after the December 1992 closing date and to close landfill #2 (Gosfield South) as soon as possible and to extend the service area for Landfill #1.
- Other options could be available.

FUTURE ACTION:

- MOE will continue to attend EWWMC meetings.
- The Ministry should follow-up with the EWWMC as a result of the January 22nd meeting.

Southwestern Region

**ETHYL CANADA INC. - CORUNNA
PROPOSED EXPANSION OF ALKYL LEAD PLANT**

BACKGROUND:

- Ethyl Canada have operated a manufacturing facility in Corunna, Ontario, near Sarnia, producing tetra ethyl and tetra methyl lead antiknock compounds, diesel ignition improvers and specialty fuel additives since 1956.
- Ethyl has proposed an expansion of their production line for lead antiknock in order to fill the market gap left by the projected closure of a Dupont plant in the U.S. in June 1991. The Dupont plant is a continuous process operation with only 50% online time. The Dupont plant is considered less efficient than the batch process at Ethyl Canada. The Ethyl product would be exported globally, including markets in Europe, Asia, Africa and South America. Ethyl expects the antiknock market to taper off as existing lead using equipment wears out.
- The expansion would double the existing capacity from eight autoclaves to 12-16 autoclaves at a cost of \$35 to \$56 million.
- Historically, Ethyl has remained in compliance for lead discharges based on stack testing and water effluent testing. They are currently being investigated with regard to MISA technical violations involving sampling procedures. They have been successfully prosecuted with regard to an air discharge from an emergency disk (safety valve) rupture. Subsequently, development of a facility to contain air emissions following a disk rupture began with construction of the facility planned for 1991.
- The Ethyl Canada plant was originally scheduled for shutdown in 1987. A Canadian delegation including the Mayor of Sarnia went to the corporate headquarters in Baton Rouge, Louisiana to lobby for the retention of the plant. They were successful.
- Ethyl's intention is to have Ethyl Canada be one of the three last lead antiknock compound plants in the world. The competing plants are in Germany and Mexico.
- Federal legislation, effective on December 1, 1990, requires a reduction in the amount of lead in "leaded gasoline" from 290 milligrams/litre (mg/l) to 26 mg/l. "Unleaded gasoline" may not contain more than 1.3 mg/l lead. These restrictions apply to on-road vehicles but do not apply to heavy machinery and fuel for marine use. There is no legislation prohibiting the manufacture of leaded anti-knock compounds.
- Ethyl's expansion plans include upgrading the existing plant's emission technology to best available technology. This may include a new clarifier, scrubbers, thermal oxidation, sludge recycle train, disk rupture containment equipment and labs.

CURRENT SITUATION:

- On January 14, 1991, Ethyl Canada submitted Certificate of Approval applications for air and water to the Approvals Branch for the expansion of their alkyl lead plant in Corunna.

FUTURE ACTION:

- The Company has approached the St. Clair River Binational Public Advisory Committee (BPAC) to be given the opportunity to present the project at a future meeting.
- The Company has been advised to hold a public information session to receive input from the public. The Company is considering offering a series of these sessions as the project proceeds.

Southwestern Region

**FIBERGLAS CANADA INC. - SARNIA
DECOMMISSIONING**

BACKGROUND:

- On January 22, 1991, Fiberglas publicly announced its intention to cease all manufacturing activities at its Sarnia Plant site.
- This plant produced commercial and industrial insulation. Production will be moved to the Company's Candiac, Quebec facility.

CURRENT SITUATION:

- The Company has informed the Ministry it intends to decommission the site and possibly offer it for sale at a later date. The site is zoned industrial.

FUTURE ACTION:

- Initial discussions between Company and Ministry representatives on the decommissioning requirements have begun and will continue into the future.

Southwestern Region

GENERMARK LIMITED, FORMERLY DOMINION BARREL & DRUM

BACKGROUND:

- The Genermark Company ceased operations and has defaulted to its mortgage holders namely: The Federal Business Development Bank (FBDB), The Royal Bank and Mr. Leo Matte. FBDB assigned the first mortgage (approximate value \$250,000) to the MOE.
- Allegations have been made to the Ministry that PCBs and other hazardous chemicals have been buried on the property and that the entire site is highly contaminated with these hazardous chemicals.
- The company received drums from a wide variety of chemical companies and refurbished them. They were sold as recycled drums. Spent process water was contained in holding tanks and periodically taken to approved liquid waste disposal companies.
- M.M. Dillon along with O.H. Materials were the successful bidder on a call for proposals to remove the drums from the site.

CURRENT SITUATION:

- The clean-up of the site is proceeding in three phases:
 - (a) Phase 1 - Removal of drums and contaminated material;
 - (b) Phase 2 - Delineation of contamination on the property; and
 - (c) Phase 3 - Removal of all contaminated material.
- Phase 1 clean-up was completed in April 1990. Phase 2 was completed in December 1990 and a report is scheduled in March 1991.
- No time frame or cost estimate has yet been established for Phase 3.
- The Security Account is providing \$400,000 for Phases 1 and 2. Approximately \$300,000 will be recovered when the property is finally sold.

FUTURE ACTION:

- Proceed with clean-up phases.

Southwestern Region

GREATERTORONTO AREA WASTE DISPOSAL IN LAMBTON COUNTY

BACKGROUND:

- There are several proposals for the disposal of wastes from the Greater Toronto Area (GTA) in Lambton County.
- Laidlaw proposes to expand a site in Warwick Township to serve the GTA and all of Ontario. This site was originally approved to serve only the local area within 30 miles of the site.
- A private land-owner, J. Esser has proposed the development of a 700 acre site in Plympton Township to serve Toronto. Plympton Township council is opposed to this proposal.
- Ogden Martin has proposed a 3,000 ton/day incinerator (energy from waste) with electrical generator to be located in Moore Township.
- The Philips Environmental Group, now owner of the Town of Petrolia landfill site, is considering making an application to receive GTA waste at the site.
- The Indian Bands of Canada have indicated that proposals for recycle/reduction facilities to serve Toronto may be considered for Indian lands at Sarnia and Kettle Point.

CURRENT SITUATION:

- Several local citizens groups have been formed to oppose the various proposals. Exemption of Metro Toronto from the Environmental Assessment process for short term solutions is resented by the local groups.
- Lambton County Council is opposed to the importation of Toronto area wastes into Lambton County and the establishment of large waste disposal facilities to handle these wastes.

FUTURE ACTION:

- Ministry staff will review all proposals for new or amended waste disposal facilities. The appropriate hearings and public meetings will be required.

Southwestern Region

I.C.I. CANADA INC. (FORMERLY C.I.L.)
LAMBTON WORKS - SOMBRA TOWNSHIP

BACKGROUND:

- I.C.I. ceased operation of its phosphoric acid and phosphate fertilizer production facilities at its Lambton Works near Courtright, in July 1986.
- The waste products of the process (filter cake (gypsum) and filtrate) were discharged into two settling ponds covering 250 acres.
- The huge inventory of pond water containing high concentrations of phosphates, fluorides, ammonia and some dinitrotoluene (DNT) accumulated. I.C.I. proposed a treatment method for pond water by lime precipitation and discharge of the treated water to the St. Clair River.
- The company conducted a survey of low level radioactive emissions from the ponds and the level of radioactivity in the discharge to the St. Clair River. Radioactive emissions are well within acceptable levels.
- At the Ministry's request, the Company invited the media, the Medical Officers of Health for Essex, Kent and Lambton, local politicians and the public to a series of open houses held in May 1987. The purpose of these open house sessions was to describe the Company's proposal and solicit public comment. Cost of the proposal was \$35,000,000 for treatment of the water and capping of the gypsum.
- During the public comment period, it became clear that more aggressive treatment of the DNT was desired. This, combined with the development of the Municipal-Industrial Strategy for Abatement (MISA) program, caused the Ministry to determine that the intent of the MISA policy should govern this situation, i.e. best available technology economically achievable should be provided.
- The Ministry issued a control order effective on October 31, 1987. Treated water from the ponds may no longer be discharged to the St. Clair River but will have to be stored in the pond system. The Company is complying with this order. Accumulating precipitation coming into contact with the gypsum is also being stored.

CURRENT SITUATION:

- Approximately 450,000,000 gallons of water are being held in storage. Projected treatment costs are now in excess of \$50 million.
- Because of the magnitude of the project and the public interest previously shown, the Region will request the entire treatment and discharge proposal, when it is received, to be referred to the Environmental Assessment Board for a Hearing under Section 26 of the Ontario Water Resources Act (OWRA).

- The company has received certificates of approval to install a temporary seal on the top and sides of the stacks. The company has completed this clay capping project which will reduce the amount of rainfall becoming contaminated by coming into contact with the gypsum.
- The company has received approval to run pilot tests using reverse osmosis to treat the contaminated water. No discharge has been permitted for the testwork.

FUTURE ACTION:

- The Ministry will continue to monitor the Company's activities and take appropriate action as necessary.
- The Ministry will await I.C.I.'s complete decommissioning plan. The Region will request the Environmental Assessment Board to hold a hearing under the OWRA respecting the full decommissioning plan.

Southwestern Region

KELSEY-HAYES CANADA LTD., WOODSTOCK

BACKGROUND:

- The Company installed a MOE approved afterburner system and high efficiency scrubber to control emissions from the iron melting cupolas a number of years ago. Additional equipment, approved by MOE, has also been installed over the years to control emissions from various other foundry operations.
- Following receipt of numerous complaints in the summer and fall of 1987, MOE conducted odour observations in the vicinity of the foundry and considered the odour emission to be in contravention of our legislation from time to time.
- The Company modified the cupolas to try to reduce emissions and undertook odour and particulate emissions testing of several potential emission sources in late 1988.

CURRENT SITUATION:

- Local citizens frequently complain about odour and "blue-haze" emissions from the foundry. The situation received media attention in Woodstock.
- A meeting with area residents was held in May 1990 to review abatement actions completed and outline further measures planned.
- The Company added a demister to the existing cupola scrubber system in August 1989. The demister was modified in 1990 in an effort to improve efficiency, and based on recent stack tests, this appears to have resulted in some reduction in emissions.
- The Company is converting its core making process to one which would significantly reduce odour emissions from the foundry. A Certificate of Approval for the first Isocure core machine was issued and full operation is anticipated shortly. A second machine is planned and may be in operation by Spring of 1991. Extensive testing is being required by MOE to ensure emissions are satisfactory.
- Modification to the existing afterburner system of one cupola was undertaken in August 1990 in an effort to further reduce emissions of odours and blue haze from the cupola control system. Source testing of the modified cupola exhaust has been completed for an extensive list of parameters including PAH's, volatile organics, trace metals and acid gases. The report should be available by February 1991. If the required testing demonstrates significantly reduced emissions, the second cupola will be modified accordingly.
- The Company is investigating odour emission abatement alternatives for the mould cooling dust collector exhaust.

FUTURE ACTION:

- Conduct observation and review stack testing results to assess effectiveness of abatement actions.

Southwestern Region

KETTLE CREEK OIL TAR WASTE: PORT STANLEY

BACKGROUND:

- An oil gasification plant once operated on two adjacent properties in Port Stanley owned by Ultramar Canada Ltd. and Shamrock Chemicals Ltd.
- Tar wastes have seeped into a surface drainage ditch, the George Street Drain, and thence into Kettle Creek.
- The Port Stanley waterworks is located on Lake Erie approximately one half mile from the mouth of Kettle Creek. Ongoing water tests have not shown Poly Aromatic Hydrocarbons (PAHs) in Port Stanley raw and treated drinking water.
- Clean-up of a "hot-spot" of contaminated waste at the mouth of the George Street drain was completed in December 1986.
- Ultramar has undertaken hydrogeological studies to identify the extent of contamination on their property.
- Shamrock Chemicals was issued a Control Order to carry out hydrogeological studies and contaminant evaluation. Court action was required to compel Shamrock to carry out the terms of the Order.
- The two property owners were advised that a clean-up is required. Ultramar has undertaken a clean-up plan consisting of land farming and biological reduction of the contaminated soil. A pilot project was undertaken in 1988. MOE approved its full scale implementation. Complete soil remediation will take several years.

CURRENT SITUATION:

- Ultramar is continuing to bio-remediate the remaining contaminated soil on their property.
- The Shamrock property has been sold to a Korean firm planning to re-refine waste oils on the site. The proposal fell through, the firm has left the province and ownership of the property is now in question.
- The MOE is seeking legal advice concerning ownership of the property and appropriate legal action to ensure a clean-up of contaminated soil.

FUTURE ACTION:

- Clean-up of Shamrock and Ultramar properties to be completed by respective property owners.
- Regular sampling of Port Stanley waterworks will continue until clean-up is completed.

Southwestern Region

LAIDLAW LANDFILL SITE - TOWNSHIP OF WARWICK

BACKGROUND:

- Laidlaw had submitted applications in 1984, 1985 and 1987 to upgrade and expand the site. These applications included increasing the service area to all of Ontario and doubling the approved site area.
- These were reviewed by Ministry staff and several discussions were held with Laidlaw staff. The company was advised that their expansion would be subject to the Environmental Assessment Act.
- The date for submission of a draft EA document has not been established.
- A citizen's group, the Warwick-Watford Citizens Committee, has been formed and is opposed to the expansion.
- In June of 1990, charges were laid against Laidlaw for alleged violations of the daily tonnage limit to be received at the site and for exceeding the maximum height restriction on the site.

CURRENT SITUATION:

- The initial court appearance was July 25, 1990 and the trial date was set for April 15, 1991.

FUTURE ACTION:

- The Ministry has established a regular inspection program for this site (every two months).
- The Ministry will investigate any complaints regarding operation of the site and follow-up on any problems identified when the inspections are made.
- The company has indicated that the plan for the proposed expansion is under review and revision and will be submitted.

Southwestern Region

LAMBTON COUNTY - PART VII PROGRAM (SEPTIC TANKS)

BACKGROUND:

- Many areas of Lambton County contain heavy clay soils which are not amenable to the use of conventional septic tank systems.
- In 1974, when this program was administered by the Lambton Health Unit, the Ministry of the Environment approved a policy to allow underdrained filter bed systems in these areas of Lambton County.
- In 1978, the Lambton Health Unit terminated their agreement with the Ministry of the Environment because of problems associated with the administration of the septic tank program.
- Following an investigation of the program, the Ministry resumed its administration with a special policy to address septic tank system installations in the heavy clay soils.
- The "typical" type of system approved consisted of a septic tank and 400 ft. - 500 ft. of distribution pipes in the tile bed.
- In late 1986, the Ministry became aware that many septic tank systems which had been approved and installed in these areas were malfunctioning because of the impervious nature of the heavy clay soil.
- Discussions with local contractors in 1987 revealed numerous reported problems by residents, many of whom circumvented the problem by installing discharge pipes directly from their septic tank into a ditch, catchbasin or municipal drain.
- Concern about potential environmental problems prompted the Ministry's decision that the installation of raised bed septic tank systems be required as of July 1987.
- Many complaints were received from local residents because of an increase in installation cost and concern about the aesthetic appearance of the "raised-bed" system.
- Malfunctioning septic tank systems continue to be a problem. Use of the minimum size permitted under the Regulation and increasing water usage by homeowners contribute to the failure of the raised bed systems.

CURRENT SITUATION:

- Several home owners have begun legal proceedings against the Ministry and/or the septic tank installer to try to obtain compensation for failed systems.

- A position requiring much larger raised bed systems is being adopted for the Lambton County area to prevent future problems.
- These changes in septic system design for raised beds will significantly increase lot size requirements for subdivisions. This will almost certainly prompt an outcry from developers and owners of vacant but approved lots.

FUTURE ACTION:

- The Ministry will be requesting that new developments or lot severances provide lots large enough to permit installation of the larger septic tank systems. It is estimated that at least one acre lot sizes will be required.
- Proposals for existing approved vacant lots which are not large enough to accommodate the new systems will be reviewed on a lot by lot basis. Any lot too small to accommodate an adequate raised bed system can only be developed using holding tanks.
- Problems with existing systems that are malfunctioning will be addressed by Ministry staff on a lot by lot basis. Staff will be recommending that the maximum area possible be utilized and water conservation measures taken to reduce the loading on the system.

Southwestern Region

MID-HURON LANDFILL SITE - GODERICH

BACKGROUND:

- The mid-Huron Landfill Site Board (comprised of one rep from 8 participating municipalities) owns and operates the Mid-Huron Landfill Site.
- A revised Certificate of Approval was issued to the Township of Goderich on December 24, 1990.
- The Holmesville Ratepayer Group (C.O.D.E.) wants the site closed.

CURRENT SITUATION:

- It is anticipated that the operating authority will file an S.29 Exemption Request with the Minister to exempt a service area increase for this site from the E.A. Act.
- Under the authority of the current Certificate of Approval issued December 24, 1990, there are four municipalities that can use the site until December 31, 1991 (Town of Goderich, Township of Goderich, Town of Clinton, Township of Colborne). An application for a service area expansion to include four other municipalities (Village of Lucknow, Village of Bayfield, Town of Seaforth, Township of Tuckersmith) must be filed by February 1, 1991.
- Landfilling at the site is presently occurring in accordance with the provisions set out in the Provisional Certificate of Approval.

FUTURE ACTION:

- Abatement staff will continue to inspect the site on a monthly basis to monitor landfilling operations.
- It is anticipated that C.O.D.E. will continue to actively challenge landfilling operations at the site including continued pressure on the Minister to deny the anticipated S.29 E.A. exemption request.

Southwestern Region

OIL WELL BRINE AND DRILLING MATERIALS LAMBTON AND KENT COUNTIES

BACKGROUND:

- Oil producing wells in Lambton and Kent Counties have caused environmental concerns due to their formation fluids (oil field brine) being discharged to area ditches and streams.
- Oil wells in Southwestern Ontario generate a salty, sulphurous formation fluid or brine with the crude oil. In many cases, the brine has been directed to the nearest surface watercourse for disposal.
- Studies have shown that such brine discharges impair water quality.
- The Ministry of Natural Resources (MNR) regulates producing oil wells. Oil well brine is not classified as a liquid industrial waste.
- MOE and MNR agreed to collaborate on the handling of corrective actions needed to resolve the problem. A joint MOE/MNR program was undertaken to review and evaluate the various alternative disposal methods for this brine. It was concluded that the only viable option for oil well brine disposal in these areas was subsurface disposal into the Detroit River formation.
- MNR has prohibited oil field brine discharges into natural watercourses. Failure to provide an environmentally satisfactory method for disposal will result in the shutdown of the well.
- The MNR and MOE met with the Oil Producers Association during 1989 and 1990 to outline this MNR policy. The producers were also informed that provincial funding assistance was not available.

CURRENT SITUATION:

- At present, disposal of solid oil-field drilling materials at an approved landfill is permitted provided the material has been treated to pass slump and leachate tests.

FUTURE ACTION:

- MOE and MNR staff are preparing recommendations for the categorization, treatment and disposal methods for oil field drilling and production materials.

Southwestern Region

PETROLIA LANDFILL SITE: PETROLIA

BACKGROUND:

- The County of Lambton assumed responsibility for waste disposal, including ownership of all municipal landfills on January 1, 1991.
- During 1990, the Town of Petrolia was concerned they would not receive adequate compensation for the loss of their landfill and invited bids from interested parties.
- The site was eventually sold during 1990 to K & E Solid Waste (owned by the Philip Environmental Group).
- The Certificate of Approval for the site allows the disposal of domestic, commercial and non-hazardous solid industrial waste. The service area is all of Lambton County excepting Sarnia, Clearwater, Point Edward and Moore and Sombra Townships. The approved disposal rate is approximately 50 tons/day.
- At the present rate of landfilling, the life of the landfill is estimated to be in excess of 100 years. Remaining capacity is approximately 2,140,000 tonnes.

CURRENT SITUATION:

- Lambton County Council is opposed to the importation of Metro Toronto wastes into any site in the County and has approved a legal fund of \$300,000 to fight this and other proposals.

FUTURE ACTION:

- Staff will evaluate any application for re-certification of the site for an expanded service area. The Town has been advised of the need to have the site re-certified if the service area is expanded.

Southwestern Region

SOUTHWINDS SUBDIVISION, WESTMINSTER SEWAGE DISPOSAL PROBLEMS

BACKGROUND:

- A number of septic tank and tile fields in this subdivision are experiencing problems. There is a high degree of public awareness by the residents who are demanding that the problems be solved at no cost to them.
- In order to get approval of the subdivision in 1987, the developer hired three soils consultants to review the design of septic tank and tile bed systems. The first two consultants indicated the soils were marginal for installation of private sewage systems. The third consultant indicated he had additional information which would allow the installation of conventional septic tank and tile fields. On the basis of this third consultant, the Health Unit, acting as the Ministry's agent, approved the use of private septic tank and tile field systems for the subdivision.
- The subdivision began construction in 1987 and has had problems with septic tank and tile fields ever since its inception. Attempts to correct problems on an individual basis have not been successful. In June of 1990, the Ministry of the Environment, as a requirement of an Environmental Appeal Board order, conducted a soils evaluation on one property in the subdivision. The investigation revealed soil conditions not suitable for the installation of a conventional tile bed. This was contrary to opinions put forward by the third consultant working for the developer.
- In August of 1990, the Health Unit and the Ministry conducted a pollution survey of the subdivision. The findings indicated 72% of the sewage systems had at least some problems in their operation.
- Two public meetings have been held with the residents to indicate the findings of the pollution survey and the action which is to be taken regarding funding. The residents are adamant that they will not pay any funds towards the cost of a solution. The residents have contacted the newly elected Member of Parliament, Irene Mathysson and requested assistance from her.

CURRENT SITUATION:

- Two property owners have filed a Notice of Intent to seek damages from the Health Unit and the Ministry of the Environment for approving systems that are not functioning. The possibility for claims by other residents exists.
- The Notices of Intent have been forwarded to the Crown Law Office and onto the Ministry's insurers. Our Investigations and Enforcement Branch has been asked to investigate the situation to gather facts for the negotiations of the claim.
- The Ministry is processing a funding application by the Town of Westminster to implement a solution to the problem. A sewer system and communal sewage

treatment plant appears to be the only viable option. The Town has initiated an Environmental Assessment to look at options for a solution. Estimated cost of a sewage treatment plant and sewers is \$3.5 - 4.0 million; two-thirds of which would be eligible for funding under normal Ministry programs.

FUTURE ACTION:

- The Ministry will process the application for funding on a high priority basis and work with the Town on the environmental assessment for the proposed solution.
- The Ministry and the Health Unit will work with the problem properties to implement short term remedial action until a permanent solution is in place.
- The residents are lobbying for an enquiry or other form of public investigation to determine responsibility for their sewage problems.

Southwestern Region

ST. CLAIR RIVER - STATUS OF SPILLS

BACKGROUND:

- Frequent spills to the St. Clair River from the Chemical Valley industries decreased from 1986 to 1988 but increased in 1989. There has been a reduction in 1990.

<u>Year</u>	<u>Spills from Chemical Valley Industries</u>
1986	117
1987	102
1988	73
1989	106
1990	80 (preliminary)

- Approximately 25% of the spills reported had "a likelihood of impairment under Section 80 of the E.P. Act.
- Since the beginning of 1986, the water intake plants along the St. Clair River were shut-down due to chemical spills on a total of 11 occasions.

<u>Year</u>	<u>No. of Shut-Downs</u>
1986	3
1987	1
1988	1
1989	3
1990	3

- Since the fall of 1985, the Ministry has laid over 95 charges in the Sarnia area and 28 occurrences are under active investigation.
- Two Provincial Officer's Requirements issued in 1986 and 1989 resulted in the industries improving their control of spills. These Requirements involved the development of industry contingency plans, improved detection, diversion and treatment capabilities, training of employees and compilation of environmental and health data for on-site chemicals.
- Ministry staff have lectured at individual Company training sessions on the need for and methods of preventing spills. As an example, a staff member lectured at 45 individual sessions covering 99% of the employees at one industry.
- Initial success in reducing spills was observed from 1986 to 1988 but in 1989, the number of spills increased followed by a reduction during 1990.

CURRENT SITUATION:

- Staff have met with Senior Company officials and advised them of the Ministry's and the public's concerns and needs. Each industry's spill history was reviewed and generic causes and corrective actions identified.
- Each industry is being required to develop a spill prevention program. The components of these programs include the identification of preventative measures, up-dated response plans, capital works for improved detection, containment and diversion capabilities, staff environmental awareness training and a spill risk assessment.
- The companies have initiated works toward these requirements. 16 companies have spent \$18.3 million in 1990 for spill control measures. Ten of the 16 have committed \$11.3 million for 1991.

FUTURE ACTION:

- Staff will proceed to establish a program at each company requiring the detailing of specific actions to be taken by each company including an acceptable implementation schedule.
- Each company will be required to formally confirm its intention to implement the program in the form of a letter of commitment from senior management.
- The Ministry will closely monitor both the trends in frequency of spills and the progress made by the industries in implementing their spill prevention programs. Alterations to the strategy will be made where found necessary.
- The Ministry will be prepared to take appropriate action, such as amending existing Certificates of Approval or issuing Director's Orders requiring improvements at those companies who become delinquent in implementing their prevention program.
- All spills are and will continue to be investigated by Abatement staff for two primary purposes; cause and prevention of a re-occurrence and possibility of prosecution.
- Consideration will be given to the installation of a continuous River monitor and the technical resources required to properly operate and maintain such a system.

Southwestern Region

ST. JULIEN PARK - LONDON

BACKGROUND:

- A former dump site, used extensively since the 1950s was located at the end of St. Julien Street on the north side of the Thames River.
- The site was closed in 1982, the dump buried, and the area transformed into St. Julien Park.
- MOE has tested water samples from St. Julien Park and the Thames River annually since 1982. No impact on the river was noted but low levels of some priority pollutants have been found in the leachate.
- A local resident came forward claiming he buried a dozen drums of copper cyanide wastes when a chrome plating firm, located west of St. Julien Park closed in the 1950s. The drums were allegedly buried on property west of and adjacent to St. Julien Park. The City engaged Sanexen Inc. to undertake excavation and disposal of the drummed waste. No cyanide or plating wastes were found.
- An epidemiology study carried out by the University of Western Ontario and the Medical Officer of Health has determined that the area around St. Julien Park does not have a higher rate of cancer deaths than other areas in the City.
- Random surface soil samples collected in the park in 1988 showed no need for remedial action. Cadmium levels exceeding MOE clean-up criteria were found in an area west of the park. This area was remediated by the City of London.

CURRENT SITUATION:

- Local residents have requested a comprehensive environmental study, including monitoring of basement air for toxic pollutants. The Ministry has requested the City to undertake the study and has offered to assist with funding. The City has received bids for the work but has not as yet agreed to funding.

FUTURE ACTION:

- MOE will negotiate an agreement with the City for funding for the comprehensive study of the St. Julien Park area. Pending agreement, the study will proceed.

Southwestern Region

ST. MARYS CEMENT CO., ST. MARYS

BACKGROUND:

- The Company applied in the Spring of 1989 for a Certificate of Approval for a trial using rubber tire chips as supplementary fuel in a large cement kiln.
- Although the proposal, including extensive stack testing, was found to be technically sound, MOE decided to delay further consideration until such time as a waste derived fuel study was conducted. Utilization of waste tires as a fuel was considered to be a last resort in the event that other uses for the rubber were not practical or would not utilize all the waste tires being generated.
- The Company was concerned about the possibility of an Environmental Assessment being required for the ongoing use of tire-derived fuel, in the event the proposal is designated by the Minister to be subject to the Environmental Assessment Act.

CURRENT SITUATION:

- Certificates of Approval for Air Emissions and a Waste Disposal Site (Combustion Facility - Energy from Waste) were issued by MOE for the planned ten day test. The Company agreed to delay the test until the Spring of 1991 to give MOE opportunity for further study of alternatives for dealing with waste tires.
- Public information open houses were held by the Company on November 27, 28 and 29, 1990 concerning the proposed test.

FUTURE ACTION:

- Ensure proposed testing of rubber tire chips as a supplementary fuel, is carried out in accordance with MOE Certificates of Approval.

Southwestern Region

SYDENHAM MILLS PLAN OF SUBDIVISION TOWNSHIP OF SYDENHAM, GREY COUNTY

BACKGROUND:

- The Sydenham Mills residential subdivision is located approximately six kilometres south of the City of Owen Sound. The property constitutes part of the headwaters area of a North Spey River tributary. The North Spey is considered a significant brook trout habitat by the MOE and the Ministry of Natural Resources (MNR).
- Grey County is one of the few areas remaining in Ontario that retain the environmental conditions that are necessary for sustaining sensitive aquatic species such as the brook trout.
- This subdivision came at a time of mounting public concern with the growing number of rural building lots that were being allowed by the County government. At the request of an area resident, the noted wildlife painter, Mr. George McLean, the Minister of the Environment directed the Environmental Assessment Advisory Committee (EAAC) to conduct public meetings to examine the ability of Grey's planning process to respond to the environmental issues posed by the subdivision. Mr. McLean also referred the plan to the Ontario Municipal Board.
- The OMB hearing was conducted in the spring and summer of 1990 and lasted five weeks. Along with MOE, MNR and the Ministry of Municipal Affairs (MMA) attended and gave evidence on the planning, environmental and resource conservation implications of the development.
- The OMB declined the subdivision and chided the County for failing to appreciate the environmental ramifications of the development.
- Testimony provided by the MMA and the Grey County Planning Department indicated that:
 1. the County's Official Plan has not been updated in more than ten years;
 2. the County has not followed the direction of its Official Plan and monitored the extent and effect of rural development on the environment; and
 3. the impact of rural residential development on the Official Plan's goal to concentrate development in serviced or serviceable communities is not being raised in the County as a legitimate planning issue.

CURRENT SITUATION:

- The EAAC produced a second report to examine the ability of Grey County's planning process to address environmental issues. This report has been released to the Minister's Office.
- The ADM's Office has solicited comments on a post-hearing brief prepared by the Ministry's Legal Services Branch on the Sydenham Mills hearing.
- Grey's consent practices are the subject of an investigation by the Ministry of Municipal Affairs.
- Grey County and the development industry have charged that the Province has failed to articulate its objectives for rural settlement and septic tank servicing for the County. The Province does not have a land use policy on servicing, settlement and the environment.
- The Region and the District Offices do not have the resources to challenge Grey's hundreds of severances and re-zoning before the OMB.

FUTURE ACTION:

- The Province should consider requiring the County to update its official plan and adopt policies that are more effective in dealing with environmental issues.
- The Province should consider requiring the County's severance granting body to abide by its official plan. A temporary suspension of the County's severance powers could be considered until the update of the official plan is finalized.
- The Province should consider addressing settlement, servicing and environmental issues as land use policies of provincial significance and not only as concerns that can be dealt with by technical guidelines.

Southwestern Region

**TOM SANDERS TIRE DEPOT SITE
TOWNSHIP OF EGREMONT**

BACKGROUND:

- Sanders commenced operations on property in mid-May 1990.
- There are approximately 33,000 tires on site.
- A notice of violation was issued on September 24, 1990 by the local fire official.
- Encapsulation of tires was completed on January 17, 1991.
- The owner has filed an application for a transfer facility with the Ministry on December 14, 1990. The Municipality and a number of ratepayers are objecting to the site. The Municipality has requested the Regional Director to require the E.A. Board to hold a public hearing.
- M.O.E. paid security on site since December 13, 1990.

CURRENT SITUATION:

- A site zoning change is required. As of January 23, 1991, the owner has not filed a request for a zoning change with the Municipality.
- The site is now in compliance with the Fire Code.
- Site security is currently continuing. To date the cost has been \$13,000 (\$2,167 per week).
- Mr. Sanders intends to file for approval of a processing site (shredding) on this property.
- Mr. Sanders is currently in a default situation with mortgage payments for the property.
- At the request of the local MPP, Bill Murdoch, the Township of Egremont set up a public information meeting for February 11, 1991 at 7:30 p.m.
- It is anticipated that the Ministry will be challenged on the broader Provincial perspective with respect to tire management activities by both MPP and ratepayers. The Region has requested Toronto representation at this meeting through the ADM's Office to speak to policy and planning issues on scrap tire management activities across the Province.
- The owner is currently under investigation by the Ministry for operation of a transfer facility without a Certificate of Approval.

- Media interest is high on this issue. (TV, print and radio.)

FUTURE ACTION:

- A decision on continuance of MOE paid security will be made within the next two weeks.
- MOE is awaiting response from Sanders on how he intends to proceed with zoning issues.
- Ministry representation will be provided for upcoming information meeting.
- Upon the withdrawal of MOE paid site security, Abatement staff will monitor site at least once every two weeks to ensure that no further tires are brought onto the site.
- The local fire official will be kept informed of MOE activity on this matter.

Southwestern Region

**TRICIL WASTE DISPOSAL - MOORE TOWNSHIP
(LAIDLAW ENVIRONMENTAL SERVICES LTD.)**

BACKGROUND:

- During 1985, the Company applied for a 26 hectare expansion to its hazardous waste landfill site. After a hearing by the Consolidated Hearing Board in 1985 and an appeal to Cabinet, the facility was approved.
- The expanded landfill site is accepting waste.
- In compliance with one of the Conditions of Approval, Tricil has established a liaison committee with representatives of the municipality, Ministry and citizens.
- The Company has announced it intends to pursue the approval and construction of a rotary kiln for waste incineration to complement its existing liquid waste incinerator. Ministry staff have informed Tricil that any proposal for a rotary kiln would require an environmental assessment.

CURRENT SITUATION:

- Ministry staff monitor the operation of the incinerator and the landfill site.
- Tricil Waste Disposal was purchased by Laidlaw Environmental Services Ltd. and a corporate name change occurred in April 1990.
- The company held a public open house on May 31, 1990 to provide the public with information on the rotary kiln proposal and has continued with its public information program.
- The Company has submitted a draft environmental assessment report for the Rotary Kiln project for review by the Ministry.

FUTURE ACTION:

- The draft environmental assessment report will be reviewed by Ministry staff and comments will be provided to the company. The proposal will be subject to the requirements of the Environmental Assessment Act.

Southwestern Region

VICTORIA HOSPITAL, CITY OF LONDON ENERGY FROM WASTE PLANT

BACKGROUND:

- Victoria Hospital submitted an Environmental Assessment proposal for an Energy From Waste Plant which would burn solid waste at the rate of 300 tons per day to co-generate steam, electricity and domestic hot water for the Hospital.
- The project underwent an extensive hearing conducted by the Consolidated Hearings Board which approved the project with a number of conditions.
- Construction of the EFW incinerator was completed in 1987. Three stack monitoring runs showed contaminant levels from the stack to be lower than the levels predicted at the Environmental Assessment Hearing. The Ministry conducted ambient air monitoring concurrently with the stack monitoring and observed no effect.
- Fly ash from the incinerator was found to contain high levels of lead and cadmium. The Town of Westminster launched an \$11 million lawsuit against the Hospital and the city for allowing the dumping of the ash at the municipal landfill. This action was dropped when the Hospital began disposing of the fly ash at Tricil.
- The Hospital is tied to a five year agreement with the City, limiting tipping fees to \$6/ton. Under this constraint the facility is not financially viable. Considerations by the Hospital to expand its service area have not been pursued.

CURRENT SITUATION:

- The Hospital announced it has been unsuccessful in negotiating a higher tipping fee with the City of London. If a buyer for the incinerator is not found by April 1991, it will close the facility.

FUTURE ACTION:

- Sale to another party would necessitate an amendment to the Certificate of Approval which specifies the facility must be owned and operated by the Hospital. An Environmental Assessment would likely be required.
- MOE to continue to monitor operation of the EFW for continued compliance with legislation.

Southwestern Region

WEST CENTRAL REGION

BRESLUBE LIMITED, BRESLAU

BACKGROUND:

- BresLube Limited, a Division of Safety Kleen Canda Inc., acquired the oil reclaiming operation in 1977 and converted to a new vacuum distillation process with expanded capacity in April, 1985. Hydrotreaters were installed in 1986 and 1988. Hydrotreating was converted to a two-stage process in early 1990. The Clay contact process, filter press and fixation operations were subsequently decommissioned.
- Ambient air surveys in 1981, 1982, 1983, 1984 and 1985 found contaminants detected at low levels but within Ministry criteria for ambient air. The Ministry of Labour reviewed TAGA data and commented that it is unlikely toxic effects could be observed.
- A Citizens' "BreLube Committee" was formed in response to odours coming from the facility. The Ministry of the Environment (MOE) maintains contact through meetings held at the company and information by mail.
- A Control Order was served September, 1983, requiring compliance August 31, 1984. An Amending Control Order was served July, 1984, with the same compliance date. Incinerator emission controls were installed. A Section 126 survey was completed June, 1986. The company acted on or responded to all items required by the survey recommendations.
- The company was charged related to odours experienced between September 5 and September 9, 1987. Trial was held on May 22, 23, 1990, and the company was convicted and fined \$22,500.
- In March, 1989, a vehicle audit was performed by MOE staff. Polychlorinated biphenyls (PCB) in samples was less than 10 ppm . One sample found chlorinated solvents slightly greater than 2 percent.
- The company retained a groundwater consultant to assess the extent of contamination below company property.
- The consultant's December 1988 report has been accepted and indicates no continuing off-site movement of contamination.

CURRENT SITUATION:

- Odour complaints continue but yearly numbers have been greatly reduced since October, 1986. Even though the duration of odour incidents has decreased, the plant remains a source of odour.

- The company has a PCB storage site containing approximately 80,000 gallons in locked guard tanks at concentrations ranging from 50 ppm to 1750 ppm. The company submitted in October, 1988, an application for Part V approval to destroy on site PCB waste in the hydrotreating process. The application has been recommended for a public hearing and is under review in Approvals Branch.
- The company has also applied for a Certificate of Approval to enable transport of PCB waste back to generators.
- A Part V, Certificate of Approval, for the site was issued June 13, 1989. The company has appealed conditions 4, 13 and 14. Condition 4 requires analyses of reclaimed fuel for use on site. Condition 13 states that PCB waste is not to be received at the site. Condition 14 requires loads of waste from outside Ontario be accompanied by a PCB analysis.
- Process decommissioning as a result of hydrotreating changes has eliminated the need for waste acids, lime and clay. The company still receives waste caustic for process purposes.
- The company is preparing to make application for a private pipeline to the City of Kitchener for wastewater disposal to eliminate the need for trucking.

FUTURE ACTION:

- Investigate odour incidents as required.
- Continue participation on the liaison committee.
- The company has been requested to supply a copy of an odour audit report undertaken the latter part of 1990.

West Central Region

**CHEMICAL WASTE MANAGEMENT LIMITED (CWML)
PCB CLEANUP AND STORAGE - SMITHVILLE**

BACKGROUND:

- Smithville has the largest stockpile of Polychlorinated biphenyls (PCBs) in Ontario, including more than 160,000 litres of PCB liquids, 70 vaults (4 ft. by 4 ft. by 5 ft.) and 1,000 drums of PCB contaminated materials (including 200 drums of contaminated soil, 82 drained transformers and several hundred small items, such as capacitors, magnets and other metallic components).
- All waste materials have been consolidated in drums and vaults and placed in a secure building and tank farm located on-site.
- A consultants report has indicated that there is PCB oil in the upper aquifer, covering an area of approximately 70 m by 150 m, under the east side of the site. PCB has only moved a few meters in the groundwater. Trichloro Benzene (TCB) and Trichloro Ethylene (TCE), the other two major contaminants which have dissolved in the groundwater, have moved to the vicinity of the municipal well which has been shut down. This well is approximately 450 metres downgradient from the site.
- MOE funded 100% of the cost of the \$3 million water pipeline from Grimsby which was completed in September 1988. The two municipal wells which supplied water to Smithville were then shut down.
- The entire site is now surrounded by a 6 foot high perimeter chain link fence equipped with an intruder alarm system, and is routinely patrolled by security guards. In addition, the PCB storage and containment buildings are enclosed on the north and east sides by a separate 6 foot high chain link fence, and are locked and equipped with security, smoke and hi-low temperature alarms.
- Procedures for emergency response have also been established in consultation with the Smithville fire department, the Niagara regional police and the local fire department.
- The crown has clear title to the property.
- Regular liaison with the Citizen's Group Committee and the Township of West Lincoln is being maintained to monitor and direct site clean-up.
- The next phase of the clean-up will involve the use of a mobile rotary kiln for the destruction of the PCB wastes and contaminated soil.

CURRENT SITUATION:

- Enesco Inc, was awarded a \$12.7 million contract to destroy PCB wastes and contaminated soils using rotary kiln technology. Escalation of additional contaminated soil will elevate the contract price to \$15 million or more.
- An open house/public meeting was held in Smithville on November 15, 1989, with main emphasis on PCB destruction program.
- Preliminary hearing was held in Smithville on December 14, 1989. Enesco Inc., MOE, Township of West Lincoln and Liaison Committee were granted status.
- An Intervenor Funding Hearing was held on January 18, 1990. The Liaison Committee was granted intervenor funding. The Township of West Lincoln hearing expenses are funded by MOE.
- Environmental Assessment Board (EAB) hearing on the incineration project commenced in Smithville on February 19, 1990 and terminated on April 12, 1990.
- Certificates of Approval were prepared in late June and early July, 1990.
- Site preparation by Enesco Inc. for the incineration project commenced on October 10, 1990. Assembly of the incinerator started on November 17, 1991.
- An open house was held on the site on Saturday, January 5, 1991. Guided tours of the incinerator, water treatment system and the TAGA 6000 were given to the public. Three hundred and sixty six people were registered in the entry log.
- Unions have complained to Immigration Canada that functions carried out by Enesco Inc.'s US employees can be carried out by Canadian employees. Enesco's position is that due to the highly specialized nature of their incinerator, experienced employees are necessary. The Ministry supports this position and is not prepared to suffer delays or compromise public health and safety with inexperienced employees operating the incinerator.
- Eight containment wells were constructed in the immediate area of the oil deposit and placed into operation in June, 1989. Water from the wells is treated in a granular activated carbon water treatment plant and then stored in two above-ground pools (40,000 gallons each) for analysis prior to discharge to sanitary sewer. The containment well system appears to have been successful in arresting the movement of the PCB, TCB and TCE contaminants in the shallow aquifer.
- An evaluation program for the remediation of the groundwater contamination has been developed and was approved by the Ministry and the Liaison Committee. A consultant has been selected and is preparing a report that will include recommendation for the remediation program.

- Sampling programs for air, private wells, municipal wells and early warning monitoring wells are in place. PCB's have not been detected in the downstream early warning wells but have been in air at the fenceline and outside the containment building in the summer months.
- The liquid and solids containment and storage projects, incineration program and contaminated aquifer investigation program has cost approximately \$10 million to date.

FUTURE ACTION:

- Incineration is expected to start February 4, 1991 and be completed near the end of this summer.
- Demobilization of the incinerator and site restoration is expected to take place this fall.
- Groundwater remediation report is anticipated to be finished by the end of January, 1991. Responses will be sought from the Township of West Lincoln, Liaison Committee and University of Waterloo's groundwater panel.
- Test wells and domestic wells are still being sampled and monitored on a regular basis for various contaminants.

West Central Region

IMC FERTILIZER PLANT DECOMMISSIONING, PORT MAITLAND

BACKGROUND:

- IMC in Port Maitland and CIL in Sarnia imported phosphate rock from Florida for the manufacture of fertilizers. The rock contained naturally occurring radionuclides, most of which was Radium-226. Most of the radionuclides were contained in the waste gypsum slurry which was discharged into five large tailings ponds (A, B, C, D1 and D2). However, some were retained in the process equipment, recycle and gypsum filters in the phosphoric acid plant.
- A sulphuric acid plant, a wastewater treatment facility and storage buildings are also located on the site. A zinc roasting plant was located adjacent to the site but was torn down approximately 20 years ago.
- The sulphuric acid plant discontinued operation in 1986 but continued to be utilized as a distribution centre until 1989 when operations were suspended.

CURRENT SITUATION:

- The Ministry of the Environment (MOE) met with IMC and CH₂M Hill on November 26, 1990 to discuss current status of decommissioning. IMC has changed consultants from MacLarens to CH₂M Hill.
- All runoff water in the ponds and leachate in the containment ditches around the ponds are treated and discharged into the Grand River. The effluent from the treatment plant is analyzed for phosphorus, TKN and pH and meets effluent objectives.
- IMC is now included on the Municipal and Industrial Strategy for Abatement (MISA) and is currently conducting pre-regulation monitoring. They have submitted results from December 1989.
- Studies to locate all radiation contamination, asbestos material and Polychlorinated biphenyls (PCBs) have been completed and submitted to MOE for review. All transformers containing high level PCBs are still in service.
- Approximately 100 monitoring wells have been installed. Testing for phosphorus, fluoride and pH is ongoing in the pond areas. More detailed chemical testing is being performed around the plant site.
- Approximately 40 test pits have been dug and the soils are being tested to determine the leachability of gypsum and uranium.
- Two buildings have been demolished but asbestos siding remains on concrete pads on site.

- Most of the machinery and electrical equipment has been removed from the site.
- As per the closure plan for Ponds A, B, C, IMC plans to flush and treat the phosphorus in the gypsum. Waste Management Branch is completing guidelines for decommissioning of phosphogypsum ponds.
- The study on the uranium content in Pond D has been completed and submitted to MOE for review. The Saskatchewan Research Council is conducting a study to assess the leachability of uranium from gypsum.
- In August, Rondar destroyed all low level PCBs and removed the low level out-of-service transformers from the site.
- An Arkansas firm has taken all vanadium catalyst from the site for reclaiming vanadium.
- Dismantling and removal of the sulphuric acid plant and ball mills have been completed.
- The ball mills have been sold to an Ottawa company and removed. Asbestos siding will remain on concrete pads on site.
- IMC has applied for Director's Instructions to establish a Regulation 11/82 site for all high level PCBs. MOE staff have reviewed the proposal and visited the site.

FUTURE ACTION:

- Pumping tests on Pond C will start in late Spring, 1991 and will take approximately 8 weeks.
- Demolition of the granular storage building is expected to commence in 1991.

West Central Region

LAX PROPERTY, HAMILTON HARBOUR

BACKGROUND:

- Sam Lax of Lax Iron and Metal purchased water lots from the Hamilton Harbour Commission and began filling them with excavated rock from construction of a mountain access road in mid-1960's.
- From the early 1970s to mid-1970s various materials including industrial wastes were deposited onto the rock fill to raise elevation.
- The City expropriated the property in November 1984 for use as the focus of its waterfront recreational development.
- The City detected areas where vegetation was not growing in the fall of 1984.
- Phytotoxicology Section surveyed the site and found very high levels of metals including lead and cadmium.
- On instruction of City Council, the site was fenced.
- Additional analyses by the city were presented to Council in December, 1985. The report recommended removal and containment of the material.
- The City hired a consultant who prepared an action plan for removal and containment of the material.
- A contract for removal of up to 200 tons of surface industrial waste at cost of \$250,000 was awarded to Philip Enterprises in June, 1986 and was finalized in October, 1986.
- The City approved a revision to the contract for the removal of 4,800 tons at cost of \$600,000. However, a further 10,000 tons was identified for removal at an estimated cost of \$1 million.
- The City stopped further excavation in November, 1986 and requested \$1 million from MOE to assist in clean up.
- Funding assistance of \$825,000 was approved by Management Committee. However, The city requested that assistance be put on hold since their solicitor advised that this may influence the expropriation hearing which will decide on value of land.
- Philip Enterprises has fixed the material excavated to date, and transferred it to a certified landfill site.
- MOE has completed a magnetometer survey of the site and has forwarded the report to the city.

CURRENT SITUATION:

- MOE and the City have agreed upon a procedure for determining what further wastes need to be removed from site.
- A consultant retained by the city delineated the waste requiring removal, and estimated the cost of completing the cleanup at \$3 to \$4 million, \$5 to \$7 million including clay cap.
- The cleanup is still on hold while senior levels of government are approached to assist in funding clean up. This decision by City Council has stopped development of:
 - the environmental assessment for the park development;
 - the application for a Section 45 approval for the park;
 - the socio-economic evaluation of the park, required by Tourism and Recreation before releasing the Province's \$10 million contribution to the development of the park.
- The City has approached MOE seeking financial assistance to complete clean up, and Mayor Morrow met with the Minister in late May.
- The Minister and Mayor agreed to use the Province's \$10 million contribution to the park for both the environmental clean up and the park development.

FUTURE ACTION:

- MOE is determining the Province's intention with respect to the previous commitment.
- If the response is positive, details of the grant can be prepared.
- An environmental assessment exemption for the cleanup project is being prepared by the city.

West Central Region

**P & L TIRE RECYCLING INC.
GLANBROOK TOWNSHIP (MOUNT HOPE)**

BACKGROUND:

- Approximately 800,000 tires are stored on six acres of a 45 acre parcel of agricultural land.
- There is insufficient space on six acres to re-pile tires.
- On June 13, 1990, a joint MOE/Fire Department/Fire Marshal inspection was conducted. The site was not in compliance with the Fire Code.
- The local Fire Department has laid charges under Fire Code.
- MOE has provided two security guards at the site to guard against arson.
- On July 27, 1990, Director's Order served on the owners and operators to:
 - bring site into compliance with Fire Code;
 - provide security;
 - cease accepting tires;
 - provide fire reservoir and containment;
 - provide access roads.
- On August 3, the owners appealed the Order and have failed to comply.
- On September 13, MOE served Notice of Intent to have work done at the owners' expense.
- The Environmental Appeal Board hearing on the appealed Order began on November 8, 1990. It resumes January 25, 1991.

CURRENT SITUATION:

- Site remediation is to be carried out in two phases:
 - Phase I: Construction of fire access roads, containment pond and water reservoir.
 - Phase II: Management of tires.

Phase I

- January 22, 1991 tenders closed.
- January 25 contract to be awarded.
- March 31 construction to be completed.
- Containment pond to be constructed in spring of 1991.
- Estimated total cost of Phase I \$200,000.00.

Phase II

- Terms of Reference prepared to re-pile whole tires or tire parts or to remove tires from site for recycling.
- Tenders close early March 1991.
- Recommended proposal to Management Committee for approval mid-March.
- Actual work may take 3 to 4 months.
- Total cost for Phase II could exceed \$1.5 million.

FUTURE ACTION:

- Target date for site compliance is December 31, 1991.

West Central Region

**STEETLEY QUARRY PRODUCTS INC.
NEW/PROPOSED LANDFILL SITE, FLAMBOROUGH**

BACKGROUND:

- In the spring of 1988, Steetley Quarry Products Inc. announced plans to develop a new 200 acre landfill site in the Town of Flamborough for the receipt of municipal, commercial and industrial waste, serving all of Ontario.
- This proposal was designated as an "undertaking" under the Environmental Assessment Act.
- Steetley has held a number of open houses and prepared a number of news letters notifying local residents, municipal officials and government departments of ongoing Environmental Assessment (EA) planning activities.
- A landfill site public liaison committee was established by Steetley on the recommendation of the Ministry in 1988, and has met frequently throughout the EA planning process.
- A local public interest group - Greensville Against Serious Pollutions has been very vocal in its opposition to the new proposal.
- Local municipalities, including the Town of Flamborough, Dundas and the Region of Hamilton-Wentworth are on record for opposing development of the site, especially since proposal is to service the entire province.

CURRENT SITUATION:

- Steetley submitted Draft EA to the Ministry in late 1988. Final EA document forwarded to the Minister in November 1990.
- Government and public review of Final EA document expected to be completed by April 1991.
- General public and local government opposition to new landfill still very strong.

FUTURE ACTION:

- Due to controversy surrounding Steetley proposal, Ministry staff anticipate Minister's decision to hold an Environmental Assessment Act Hearing sometime in mid 1992.

- Most likely will be "bumped up" to a consolidated hearing under the Consolidated Hearings Act, as there are a number of amendments to existing legislation required, including Niagara Escarpment Planning and Development Act, local Official Plan and Zoning By-law, etc.

West Central Region

TYRE KING FIRE CLEANUP

BACKGROUND:

- The fire began on February 12, 1990 causing dense, choking black smoke to be emitted. This smoke resulted in large numbers of people being evacuated.
- Five families had to leave their homes permanently in the aftermath of the fire.
- Contamination including free oil produced from the burning tires sank into the ground beneath the fire site. Contaminated run-off water had to be contained. Both surface water and groundwater at the site have had elevated levels of contamination including benzene, toluene and xylene as well as zinc, phenols and ammonia. Dioxins and N-nitrosodimethylamine (NDMA) were detected in water at the site.

Surface Water

- Some surface water escaped to Sandusk Creek in the early days of the fire. A water advisory was placed on Sandusk Creek as a precaution against contaminated water escaping from the site. This advisory was terminated in November 1990 because of the great improvement in on-site waste water.
- Surface water run-off and water from the shallow aquifer has continued to improve in quality. This is directly attributable to site cleanup operations and also to the removal of subsurface oil.

Groundwater

- Contaminated oil from the fire sank into the ground, to a depth of less than ten feet. There has been no impact to date on domestic wells in the area. Approximately 90 monitoring wells have been drilled on and in the immediate vicinity of the site. Drinking water normally drawn from the deep water aquifer in this area has not been affected by contamination from the fire.
- Reports have been mailed to all owners of domestic wells which were sampled and inspected after the fire.

Water Treatment

- Surface water run-off and groundwater from the shallow aquifer are collected and stored in on-site lagoons or trucked to an isolated cell of the Townsend sewage lagoons. During periods of warm weather and low water table, wastewater has been spray irrigated onto the site to maintain water table levels and to enhance oil drainage from bedrock into collection sumps.

- Approximately 6.5 million litres of the contaminated water were treated by the emergency water treatment plant brought to the site at the height of the fire. The treated water was released to Sandusk Creek.
- Approximately 12 million litres of contaminated water have been trucked to Townsend Lagoons directly from the fire site.
- Natural processes of biodegradation, sedimentation and photodegradation (UV) have resulted in considerable improvements in the quality of the fire site water being held at the Townsend Lagoons. Currently, the water at Townsend Lagoons meets provincial water quality standards.
- No excess water was generated at the site during the summer. During July 1990, approximately 1.5 million litres of water were returned from the Townsend Lagoon to the fire site to supplement spray irrigation.
- A Certificate of Approval has been received for the on-site wastewater lagoon system.

OII

- Large quantities of oil were produced by the fire. Approximately 600,000 litres of oil/water mixture has been collected and this material is currently being disposed of at a hazardous waste disposal facility. The Remedial Action Plan report estimates approximately 10,000 to 50,000 litres remaining underneath the surface of the site. Oil is concentrated mainly in the NW and SE areas of the fire site. Oil quantities estimated in the RAP to be remaining in the ground are suspected to be considerably higher than actual quantities remaining.

Contaminated Solid Waste

- Soil from the site is non-hazardous but most soil will require disposal.
- The Region of Haldimand-Norfolk has established conditions for receiving these wastes at the local Tom Howe landfill site and are prepared to enter into negotiations with the Ministry.
- Approximately 55,000 unburnt tires were removed from the site as part of a rubberized asphalt project funded by the Ministry.

CURRENT SITUATION:

- A final report of the Remedial Action Plan prepared by Monenco Consultants Ltd. is to be released to the Ministry by February 1991.
- Contaminated surface water is being stored in lagoons and subsequently proportionally discharged to Sandusk Creek during periods of heavy stream flow.

- A new lagoon is being constructed to allow better water management for proportional discharge.
- Surface water drainage is being re-routed to isolate clean water from contaminated soils and water.
- Clean earth fill is being trucked on-site. Approximately half the site has received clean fill.
- A conceptual plan for the remediation of the groundwater is being developed by the Ministry.
- The Public Liaison Committee is being consulted on and advised of major remediation work.
- Approximately 5,000 tires remain on-site in accordance with the Fire Marshall's Act. A Certificate of Approval for a Waste Disposal Site was obtained for the tires. Options are being formulated for the disposal of these remaining tires.
- The results of a pilot operation to recover wire from contaminated soil are being evaluated.
- Options to dispose of contaminated soil at either the local Tom Howe site or at the fire site are being evaluated. Disposal at the Tom Howe site is preferred by the Region of Haldimand-Norfolk and the Ministry's West Central Region.
- A consultant has been retained by the Ministry to advise the Public Liaison Committee on disposal of contaminated solid wastes and the suitability of the Tom Howe site. The consultant is to complete his report by February 28, 1991.

FUTURE ACTION:

- Seventy five percent of site surface should be remediated by May 1991.
- Oil recovery should re-commence in spring.
- Negotiations with the Region of Haldimand-Norfolk on the possible disposal of non-hazardous wastes at the Tom Howe landfill site will continue.
- Consultation with Public Liaison Committee will continue.
- Another edition of the Tire Fire Reporter is to be released by March 1991.

West Central Region

UNIROYAL CHEMICAL, ELMIRA

BACKGROUND:

- Past disposal practices have resulted in contamination of the groundwater under the plant site. This has resulted in contamination of the municipal water supply with N-nitrosodimethylamine (NDMA).
- Since 1941 the company produced agricultural and rubber chemicals. From 1950 to 1969, 2,4,5-T was produced from dioxin contaminated trichlorophenol. Since 1969, concentrated wastes were hauled away; liquids were treated and sent to the water pollution control plant.
- Deep groundwater below Uniroyal has been contaminated. There is a hydraulic connection to municipal and domestic wells.
- A Technical Advisory Committee was established by MOE in November, 1982 to review and provide comments to the Director on the design and direction of abatement programs at Uniroyal.
- MOE confirmed the presence of dioxin in one shallow test well on Uniroyal property, in solids, buried pits, and liquids from recovered buried drums.
- A Control Order was issued April 13, 1984. The company complied and continues to submit groundwater monitoring reports.
- Excavation of buried drums was completed in November, 1987. Excavated drums, contaminated soils and solids were removed to Tricil. Liquids are contained in an approved storage area pending acceptance at a site for final disposition.
- Uniroyal completed an approved program to replace four operating ponds with above ground storage tanks in October, 1989.

CURRENT SITUATION:

- As part of Drinking Water Sampling Program (DWSP), a September 19, 1989, sample from the municipal south well field detected NDMA at 3 ug/l. Subsequent sampling found NDMA in four of six municipal wells and in many nearby private wells and in monitoring wells adjacent to Uniroyal.
- NDMA was found in the Uniroyal wastewater streams and the Elmira Water Pollution Control Plant effluent. It has also been detected in downstream water and sewage systems on the Grand River at Kitchener, Brantford, Oshweken and Cayuga.
- Uniroyal was ordered by an Emergency Order on December 30, 1989, to discontinue the use of NDMA, to control discharges to the municipal sewage treatment plant, and have been twice ordered to cease discharge.

- Uniroyal has appealed the Order, and is currently discharging process wastewater in accordance with an "Interim Order" of the Environmental Appeal Board (pre-sampled and authorized batch discharges).
- Region of Waterloo retained a team of consultants to trace and track sources of NDMA, determine remedial options, and develop emergency and long term water supply plans.
- Region of Waterloo has so far, provided hauled-in drinking water, connected homes to the municipal water system, shut down two municipal wells, are pumping one municipal well to waste, installed a pipe connection between Elmira and Waterloo, installed a new well to the south and installed an NDMA treatment system so that a former water well can be used as a containment well.
- The Region of Waterloo has requested financial assistance from the Ministry.
- A Director's Order, issued August 28, 1990, directed Uniroyal to remove wastes, prevent further contamination, clean up the aquifer and conduct an environmental audit. Reports have been received concerning the audit, on-site containment wells, off-site clean up and the buried pits.
- Uniroyal unsuccessfully appealed the Order and is in compliance with its requirements.

FUTURE ACTION:

- The appeal of the December 1989 Order has concluded but the Environmental Appeal Board has yet to make a decision.
- An appeal of the Director's Order began on January 22, 1991.
- MOE, the Regional Municipality consultants and Uniroyal will continue to monitor the NDMA contamination. MOE will continue monitoring the creek, sewage treatment plant effluent and Uniroyal batches as required by the Appeal Board.
- The Regional Municipality of Waterloo is continuing work with consultants and on projects to provide alternative water supplies.
- Uniroyal reports submitted under the Control Order are reviewed by MOE and the Technical Advisory Committee.
- Funding assistance for Waterloo is being considered.

West Central Region

VARNICOLOR CHEMICAL LTD - ELMIRA

BACKGROUND:

- The company was issued a Certificate of Approval (C of A) on April 22, 1988 for a Waste Disposal Site (Processing) at the Union Street site. The process involves recovery of solvents by use of a vacuum distillation process and formation of waste derived fuels.
- The company had a separate storage lot (Lot 91) which contained drums and tanks of waste materials. Removal of this material was completed in November, 1988 (1,452,521 kg.) under direction of the Cambridge District Office.
- Allegations by the public and a former employee have been registered against the company concerning improper waste management practices and environmental infractions.

CURRENT SITUATION:

- The company engaged a consultant to conduct a hydrogeological study and monitoring. Periodic submissions are reviewed with Ministry staff and direction provided. Contamination has been identified below the site.
- An audit of company operations was initiated in April and completed June, 1990, to determine compliance with the company Cs of A. The company has yet to complete improvements to the processing site as submitted in their original application. Concrete pads and dyking have been provided, although inadequate. An Order was developed to correct deficiencies.
- The Investigations and Enforcement Branch (IEB) investigated allegations made by the public and an employee against the company. IEB conducted a search under warrant on May 17, 1990.
- A magnetometer survey conducted on April 18, 1990 at the Lot 91 site has shown anomalies. Investigation will be required as part of the Order. Soil samples have also been submitted for analysis.
- A Freedom of Information (FOI) request has been received for the Ministry audit report and the company's lawyer has claimed the report contains proprietary information. A decision was made to release the report, however, Varnicolor has challenged this decision. A decision will be made by the Freedom of Information Commissioner.
- The company, a subsidiary company, a consultant, the company's president and three directors have been charged on July 27, 1990 with up to 20 charges under the Environmental Protection Act (EPA). The charges relate to failure to comply with the C of A, failure to submit a supplementary Generator Registration Report with respect

to changes in the types of chemical waste being treated at the plant, failure to obtain a C of A, and a charge relating to illegally managing Polychlorinated biphenyls (PCB) waste. A trial date is to be established by the courts on January 16, 1991.

- The company and the company's president on August 28, 1990 have also been charged under the Ontario Water Resources Act (OWRA) and EPA relating to the discharge of a material which may impair the quality of water and the discharge of a contaminant likely to impair the environment.
- On October 11 and 12, 1990, the Ministry conducted an investigation under warrant on the Lot 91 property by excavating magnetic anomalies and found empty buried drums and one drum containing suspected toluene waste.
- On October 29, 1990, the company excavated a buried steel tank at the Union Street site, as would have been required under the Order. The tank appeared to be intact and unused. A further buried concrete tank was excavated December 4, 1990. It too appeared to have been unused. MOE sample analysis show no contamination in the steel tank and no Dimethylamine contamination in the concrete tank, however the soil around both tanks was contaminated.
- A Notice, draft Order and four Provincial Officers reports were served November 22, 1990. The company made submissions to the Director. The Director's Order was served December 21, 1990.
- The company appealed the Order and asked for a stay. The stay hearing began January 18, 1991, resulting in an interim stay on Section 5 only, financial assurance, until January 26, 1991.

FUTURE ACTION:

- MOE to proceed with prosecution.
- The stay hearing is scheduled to conclude January 26, 1991.
- MOE will continue to liaise with APT Environment and other interested parties as warranted.
- MOE will continue routine and unannounced inspections of the company.
- MOE will monitor compliance with the Director's Order.

West Central Region

WASTE MANAGEMENT ISSUES IN NIAGARA REGION

BACKGROUND:

- Waste Disposal in the Regional Municipality of Niagara is the responsibility of each individual municipality.
- All municipalities in Niagara with the exception of St. Catharines, Welland and Niagara-on-the-Lake have less than three years capacity at their disposal sites.
- Waste Management Clubs were formed to resolve their future waste management problems through waste management master plans. These include:
 - (i) North Club - Grimsby, Lincoln, West Lincoln and Pelham.
 - (ii) South Club - Port Colborne and Fort Erie.
 - (iii) Central Club - Welland, Wainfleet.
 - (iv) Northeast Club - Niagara-on-the-Lake, Niagara Falls, Thorold, St. Catharines and Region of Niagara.

CURRENT SITUATION:

- All municipalities in Niagara have a blue-box program.
- The Wainfleet Landfill Sites should exceed their present capacity within two years before the Central Club Waste Management Master Plan process is complete.
- The City of Thorold currently has no landfill site and all of its waste goes to a private landfill in Niagara Falls (Niagara Waste Systems).
- The City of Port Colborne operated an incinerator and an ash landfill site. The incinerator was shutdown in September, 1990. The landfill site is presently operating in accordance with an Emergency Certificate of Approval which will expire August, 1991. The site is being monitored and hydrogeological studies are being conducted.
- The Bridge Street Landfill in Fort Erie has recently sent a request to the Minister requesting an exemption from environmental assessment. Even with an exemption, an Environmental Protection Act hearing will be necessary in 1992.
- The Mountain Road Landfill in Niagara Falls is currently operating under an emergency Certificate of Approval. An application to expand the facility is anticipated by February 1991. The landfill is subject to Niagara Escarpment Development Permits.

- Commercial and industrial wastes for the municipalities of St. Catharines and Niagara Falls are presently being diverted to a private landfill in Niagara Falls (Niagara Waste Systems).
- Tipping fees at Walker Bros. have recently been increased to \$105.00/tonne from \$85.00/tonne.

The following table reflects grant requests for various Waste Management Programs for the 1991 fiscal year. The Master Plan costs are listed with the lead municipality for each waste "club".

MUNICIPALITY	WASTE MM PLAN	HHW DAYS	BLUE BOX	COMPOST	FAP WMIP
St. Catharines	128,250	15,000	90,000	100,000	350,000
Fort Erie	250,000	15,000	5,000	20,000	190,000
Grimsby		15,000	4,000	18,000	250,000
Grimsby Club	25,000	15,000			770,000
NOTL		15,000	5,000	16,000	178,000
Niagara Falls		15,000	98,000	25,000	1,500,000
Port Colborne		15,000	30,0000	10,000	550,000
Wainfleet				42,000	
Lincoln					35,000
Welland	100,000	15,000	7,000	40,000	90,000
West Lincoln			3,000		73,000
Sub-Totals	503,250	120,000	242,000	229,000	3,993,000
TOTAL					5,087,250

FUTURE ACTION:

- Ministry of the Environment staff will continue to participate in the waste management master plans and attempt to expedite report reviews and comments to the clubs.
- District staff will continue work with Approvals Branch, municipal staff and environmental groups to address waste disposal capacity and other landfill related concerns.

West Central Region

REGIONAL MUNICIPALITY OF WATERLOO WASTE MANAGEMENT MASTER PLAN

BACKGROUND:

- The Regional Municipality of Waterloo (RMOW) initiated development of a Waste Management Master Plan (WMMP) in April, 1983.
- An initial report September, 1984 identified a number of potential landfill sites. The plan included the review of landfilling, waste shredding, energy from waste, recycling, and a public education program. Adverse reaction was found for proposed alternate landfill sites during the public consultation process.
- Council decided in June, 1985 to drop all new sites and proceed with the study for expansion of two existing sites located in Waterloo and Cambridge. Potential hydrogeologic problems were identified by MOE at both sites.
- Because hydrogeological data indicated that the Cambridge site may be unsuitable for expansion, RMOW decided in April, 1986, not to pursue site expansion but to continue its present operation within existing approvals only.
- RMOW made a formal submission of the Environmental Assessment Act (EAA) document to the Minister of the Environment on October 19, 1988. The Minister acknowledged receipt of the submission as of October 21, 1988.
- On March 27, 1990, the MOE Technical Review Team comments were submitted to the Ministry. On May 4, 1990, the Ministry advised the RMOW of two options: (1) do not address outstanding issues and the government review will highlight concerns; or (2) address technical concerns and submit addendum as part of the EA.
- Additional technical documentation was received by the MOE Technical Review Team on August 31, 1990.
- Ministry staff support the final Master Plan\EA Act submission with additional technical documentation to the Minister.
- MOE issued an Emergency Certificate of Approval (C of A) for the Waterloo landfill site to permit operation until the end of 1990 to allow time for the environmental assessment review process to be completed. The C of A was renewed to the end of 1991.

CURRENT SITUATION:

- RMOW has decided to implement the WMMP in five year stages. The first stage involves proceeding with recycling, shredding, transfer station upgrading, operation of the Cambridge landfill site and expansion of the Waterloo landfill.

- The Minister has signed a "Notice of Completion of Review" of the environmental assessment for the Waterloo landfill site expansion.
- A thirty day public comment period for the undertaking and environmental assessment commenced the week of October 1, 1990. The Cambridge District office received no comments.
- The Minister has recently signed a "Notice of Acceptance", accepting the EAA submission as a complete document. Final fifteen (15) day review period for Notice of Acceptance to commence in the immediate future.
- In early December, 1990, the Waterloo Waste and Water Watchers group formed and expressed concern with the landfill expansion and existing operation. The RMOW will try to work out concerns through a liaison committee.

FUTURE ACTION:

- Should there be a decision by the Minister that a hearing under the EAA or Environmental Protection Act is not required, RMOW may commence with the expansion of the Waterloo landfill site subject to terms and conditions of a new C of A.

West Central Region

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